

PUERPERAL INFECTION  
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AN ANALYSIS OF 283 CASES  
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FOLLOWING ABORTION OR LABOUR  
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## PUERPERAL INFECTION.

### AN ANALYSIS OF 283 CASES FOLLOWING ABORTION OR LABOUR.

During the two year period from April 1st 1926 to March 31st 1928, 725 patients were admitted to Auckland General Hospital for complications of pregnancy or the puerperium (exclusive of a number of cases of threatened abortion), and 43 of them died.

(The General Hospital will admit any case of any illness from infancy to old age, except, knowingly, normal confinement. All abnormal confinements, however, except forceps cases, are admitted to the General, not to the Maternity Hospital. The population of the district is about 200,000).

The chief reasons for admission were:-

1. Inevitable or incomplete abortion (1-3 months pregnant), 378 cases, of whom 154 were febrile ( $100^{\circ}\text{F.}$  or more) after admission, and of these 9 died.
2. Inevitable or incomplete miscarriage (4-6 months pregnant), 94 cases, of whom 47 were febrile after admission, and of these 7 died.
3. Real or anticipated complication of labour or puerperal pyrexia (i.e. total puerperal cases) 128, of whom 82 were febrile after admission, and of these 19 died.
4. "Chronic renal toxaemia", pre-eclamptic toxaemia, or eclampsia, 30 cases (included also in above

groups), of whom 3 died (including 1 from sepsis already counted in group 3).

5. Ectopic gestation, 47 cases, of whom 2 died.
6. Various other complications, 78 cases, of whom 4 died - 2 from concealed accidental haemorrhage, 1 from malignant endocarditis (at term - undelivered), and 1 from hyperemesis and haemorrhage.

If a temperature of 100° F. or more, in the absence of any other cause, is taken as indicative of sepsis, there were altogether 283 septic cases, of whom 71 were fairly serious, and 31 had an illness lasting four weeks or more without convalescence, and 35 died. These cases form the series studied.

There were no deaths from haemorrhage alone, though no doubt exsanguination would load the scales against some of the more severe cases. One patient died from empyema and purulent pericarditis following a typical attack of ~~the~~ left lower lobar pneumonia, starting two days before an easy spontaneous delivery. At post-mortem the signs were almost confined to the chest, but culture from the empyema pus gave a growth of streptococci only. With the possible exception of this patient, and also that of 1390 K who was ill for six weeks before delivery, and showed an unusual blood count, all the deaths appear definitely due to sepsis.

It is interesting to note that the much higher mortality among the miscarriage cases - 7 out of 94 - than the abortion cases - 9 out of 378 - tends to

justify the greater dislike of these cases common to House Surgeons at least. The difference is presumably due to the formation of the placenta and increasing size of the uterus. In the remainder of the paper the distinction between abortion and miscarriage is not maintained - both groups are included in the term abortion.

In considering the 35 deaths it is surprising to find that 16, or nearly half, followed abortion; only 19 following labour, although abortion is generally regarded as of relatively little importance. In addition, of the 71 other cases selected as being more severe, 34 were post-abortion, and of the 31 most prolonged, 16 were post-abortion. In this connection Allan<sup>1</sup> states that one-third of the septic cases in Victoria in 1918-27 were septic abortions. Cassie<sup>2</sup> reports 35 in a series of 129, and the report of the Scottish Board of Health Committee<sup>3</sup> states that of 1253 cases of sepsis in Glasgow between 1918 and 1922, 217 were associated with abortion. It is of course impossible to say without further statistics whether these figures really mean that septic abortion is commoner in Auckland than in these other places, or merely that a larger proportion of them than of puerperal cases reach the Hospital. Its frequency even in these other reports appears to indicate that septic abortion merits a little more attention in Text Books than those available here at least, show.



P A T H O L O G Y.MORBID ANATOMY.

Post mortem examinations were performed in 23 cases, in all of which more or less marked toxic changes were present in the solid viscera.

Sloughing or necrosis in the uterus or vagina was present in 13 cases.

Cervical or vaginal laceration in 8 cases.

More or less definite placental tissue in 8 cases.

General peritonitis in 10 cases (i.e. cases with pus or turbid fluid and flakes of lymph, or with loss of sheen and roughness of peritoneal coats and sometimes recent adhesions).

Free fluid (serous or bloodstained) in peritoneal cavity - 2 cases.

Localised pus in the pelvis - 2 cases.

Thrombosis in uterine veins - 7 cases.

Oedema of lungs in 9 cases, and congestion in 7 cases.

Broncho-pneumonia in 3, and pneumonia in 2 cases.

Septic infarcts in lungs in 4 cases, and in other organs in 2 cases.

Simple pleurisy in 7 cases, empyema in 4 cases, (2 double).

Simple pericarditis in 3 cases, purulent in 2 cases.

ADDITIONAL LESIONS FOUND AT OPERATION.

Double pyosalpinx and pelvic abscess 1 case - died.

Tubo-ovarian abscess - 1 case - recovered.

Early pelvic peritonitis - 1 case, recovered.

Pelvic abscess - 4 cases - recovered.

Acute salpingitis with serous fluid in peritoneum -

1 case - died.

Breast abscess - 1 case - died.

Empyema - 1 case - recovered.

FURTHER CLINICAL FINDINGS.

Pleurisy with effusion - 3 cases - recovered.

Peritonitis - 1 case - died.

Perineal tears - 6 cases recovered, 1 case died.

Pleuro-pneumonia, or pneumonia - 3 cases - recovered,

1 case died.

Remote abscesses - 2 cases recovered, 1 case died.

Phlegmasia alba dolens - 4 cases recovered, 1 case died.

Pelvic cellulitis - 1 case - recovered.

By adding these together it is found that the most important lesions definitely present were:-

(1) Laceration of vagina or cervix - 14 cases -

8 deaths.

(2) Sloughing or necrosis in uterus or vagina -

13 cases - 13 deaths.

- (3) General peritonitis - 11 cases - 11 deaths.
- (4) Lung complications, mainly terminal, 19 cases -  
16 deaths.
- (5) Pleurisy or empyema - 15 cases - 11 deaths.
- (6) Localised pus in pelvis - 8 cases - 3 deaths.
- (7) Retention of placental tissue (usually small  
fragments) - 8 cases - 8 deaths.

There must have been more than 14 cases with laceration in 73 deliveries (there were 9 Caesareans), but apparently this has been too slight to be noticed. In none of the abortion cases was damage definitely due to criminal force discovered.

Some of the cases grouped as pleurisy were probably terminal hydrothorax.

It is likely that there were more cases of thrombosis in vessels within the pelvis, some of which recovered.

Evidence of pus formation in the uterine wall or cavity was usually absent at P.M.

General peritonitis appears to have been unusually common in the series, for the text books available do not give the impression that it is very common, and in the North of England Committee's Report<sup>4</sup> it is stated that turbid or purulent fluid was present in peritoneal cavity in only 11 out of 49 cases at P.M., whereas here it was in 10 out of 23 (8 out of 13 puerperal).

BACTERIOLOGY: 83 specimen from 48 cases were examined, being chiefly blood cultures, cervical swabs, (or uterine swabs at P.M.), or various effusions.

Haemolytic streptococci were found alone in 14 cases, with other organisms in 4 cases.

Other streptococci were found alone in 8 cases, with other organisms in 6 cases.

Staphylococcus aureus was found alone in 2 cases, with others in 2 cases.

B. Welchii was found alone in 1 case, with others in 1 case.

Other organisms were found alone in 3 cases, with one or more of the above in 10 cases.

10 cases were reported "Sterile" (8) or "no streptococci isolated" (2).

Of the 48 cases 19 died, including those from whom -

Haemolytic streptococci were isolated - 9 cases.

Other " " " 4 cases.

B. Welchii " " 2 cases.

Staph. aureus " " 3 cases.

Other organisms " " 6 cases.

Culture reported sterile 1 case.

Blood was cultured in 36 cases with the following result:-

Sterile - 23 cases - 3 deaths.



Haemolytic streptococcus - 8 cases - <sup>6</sup>~~8~~ deaths,

(1 had B. Welchii and other organisms also).

Staphylococcus aureus - 2 cases - 2 deaths.

Other organisms - 3 cases - 3 deaths.

(Staphylococcus albus and B. Alkaligenes 1 case;

Staphylococcus albus 1 case, Sterile antemortem,

B. Coli only post mortem, 1 case).

Probably some of the other streptococci mentioned were really haemolytic as a few were apparently not fully investigated.

The presence of staphylococcus aureus in two of the small series of twelve definitely positive blood cultures, appears to be rather unusual, for although Jellett places it with streptococcus pyogenes as the commonest cause of sepsis, Fitzgibbon & Bigger<sup>5</sup> say that staph. aureus does not tend to become generalised, and that streptococci, commonly haemolytic, are almost invariably the cause of sepsis; Eden & Lockyer say that staph. aureus is a very uncommon cause; and Benians<sup>6</sup> considers it very rare apart from criminal abortion. One of these two cases was after abortion, the other was puerperal.

Of the eighteen cases in whom haemolytic streptococci were found somewhere, nine recovered after illnesses varying from two to nine weeks in length - average just under four weeks. (They were discharged from Hospital then, but were of course still unfit for work). The other nine died after six to forty-two

days - average seventeen to eighteen days. One patient was ill only two days, but she had *B. Welchii* also. In addition to these there were seven other deaths, almost certainly due to this organism - one with malignant endocarditis, etc. (7689 K), five with lesions similar to those in the proved cases who died in about five days, and one with similar lesions who died in fourteen days.

*Bacillus Welchii* was found post mortem in two cases, one of whom with no history died in a few hours after admission, and the other who had haemolytic streptococci also, died two days after delivery. Another case with similar lesions post mortem died one day after miscarriage.

Three *B. Welchii* infections in twenty-three post mortems is a fairly high proportion, and the brevity of their illness is startling, but if one to two days is the usual duration with this infection, these were the only cases in the whole series, as no other, except 5492 I, died in under five days.

Of the two cases with *staphylococcus aureus* in the blood culture, one died in seven days with septic thrombosed uterine vein, pleurisy and multiple septic infarcts in the lungs; the other lived seventeen days and had signs on both sides of the chest, especially at the bases, but unfortunately there was no post mortem.

The other two patients in whom *staph. aureus* was prominent were both pulmonary cases, and in both

the organism was found in the sputum, with haemolytic streptococci in one and streptococci in the other, (cervical swabs were not examined), and in the latter staph. aureus and a few streptococci were present in culture from pleural fluid. The patient was ill for nine weeks with pleurisy chiefly - the other (3588 K) died of chest complications after six weeks.

There is nothing of special interest in the "other organisms" group, most being mixed infections, and in some probably the most important was missed.

CAUSES are difficult to estimate partly because many of the case notes are incomplete, partly because so many cases followed abortion, and partly because it is impossible to judge how many cases were exposed to the same risks and escaped.

Very few of the abortions in the series are known to have been criminally induced; more are supposed to have been, but the numbers are quite indefinite. Hillis<sup>12</sup> found that 22-32% of his series were admittedly criminal, and considers that the deaths came from these almost entirely.

In the eighty-two puerperal cases it is noted that labour was unduly long, or difficult, or complicated by intra uterine manipulation in thirty-three cases, including nine Caesareans, and six manual removals of placenta. Ten of these died, of whom there were two Caesareans.

Among the thirty-seven most severe cases, thirteen, of whom nine died, are definitely noted to have had normal easy labours.

There are no notes of vaginal examination.

Two of the cases were confined in the same house within twenty-four hours; the first was a difficult forceps delivery, and she died in two days with a mixed infection, including haemolytic streptococci and *B. Welchii*. The second recovered after five weeks effort - causal organism unknown (10524 I and 10640 I).

In seven cases it is noted that the patient had a cold and cough, or a "bad cold" in the last week of pregnancy, and five of these died, including one who had also "septic teeth". Two others, of whom one died, are also noted to have had septic teeth. One patient's improvement dated from the extraction of teeth and draining of roof abscess.

Worst  
Twenty-four of the thirty-seven puerperal cases occurred between April and September (Winter months), and thirteen between October and March - seven were in July, five in August, and five in May. This predominance in winter is mentioned by, amongst others, Blair Bell<sup>7</sup>, and Wyatt<sup>8</sup>, and is suggestive of a connection with respiratory infections, either in the patients themselves or in attendants. This suggestion has been made by several people<sup>2,7,9,10,11</sup>, in considering certain limited outbreaks. It is perhaps a



coincidence that last year when there was a particularly wet and miserable Winter, the maternal mortality rate in the Dominion rose for the first time for six years, entirely owing to the marked increase in puerperal sepsis, (from a paragraph in the daily paper).

It seems likely that infection from the air passages or other remote foci could be carried by the blood stream to settle in damaged tissue such as is present in the genital tract after labour, especially if difficult, just as is considered to happen in Osteomyelitis<sup>13</sup>. Also the insistence in antenatal work, on the importance of attention to septic foci is, one supposes, at least partly due to recognition of such a possibility, which, however, appears to be almost entirely lost sight of in the battle of words between the supporters of exogenous<sup>o</sup> and those of endogenous infection, nearly all of whom, as far as can be judged from correspondence and articles in the British Medical Journal in the last five or six years, confine themselves to organisms resident in, or introduced directly into the genital tract itself.

While\* a careless accoucheur with a cold could easily infect his gloves or instruments, and so introduce infection directly, it seems likely that infection by the respiratory tract (as in the exanthemata), and blood stream, or by the blood stream from a focus already present in the patient, is at least worth consideration. This way of infection

would of course be disproved if the organism carrying puerperal sepsis were found to be always specific, and unable to survive away from the genital tract. This is mentioned by Lockhart<sup>23</sup> but his inference from Gordon's work appears incorrect.

Investigators, notably Burt-White and Armstrong<sup>22</sup> and Fitzgibbon & Bigger<sup>5</sup>, have apparently agreed that potentially pathogenic organisms are rare in the vagina, and that even when they are present the puerperium is usually uneventful - though Lockhart<sup>23</sup> found that in 100 patients sepsis was more common in those with pathological vaginal flora than in those without - and many therefore agree that infection is practically always introduced from without, including the perineal region, by the accoucheur, especially in a difficult labour. This leaves about 25%<sup>7.24</sup> of cases unexplained, and for these it has been suggested that coitus in the later weeks of pregnancy (Blair Bell<sup>7</sup> and Bourne) and "unknown factors", including self-examination (Williams<sup>7</sup>), may be responsible. It seems probably<sup>e</sup> that blood-borne infection would be neither less likely nor less preventable than these. It was mentioned as a possibility by Prof. Watson in his teaching in 1924 and elsewhere<sup>14</sup>, also by Fothergill<sup>25</sup>.

TIME OF ONSET. As usual this varied greatly. Some were febrile when in labour, and others did not become so until the second or even the third

week, but in the majority of cases the onset was about the fourth day.

THE SIGNS AND SYMPTOMS were usually more or less indefinite except for the raised temperature and pulse rate, and even these were not always striking. In the early days of infection there was nothing, except in the extreme cases, to indicate definitely which would recover and which would die - an omission only too well known! In the majority of cases the patient complained of shivering, malàise, headache, and sometimes of feeling hot, and this was usually all.

The lochia was sometimes diminished, and fairly frequently offensive, but in one case where a substantial piece of placenta was retained, it was unduly free. Of course, definite lesions such as pleurisy and superficial abscesses had corresponding signs, unless they were terminal or masked by a more serious condition.

Peritonitis was found difficult to diagnose with any degree of certainty, but when suspected was always present in the post mortem cases. It was marked by more or less tenderness, distension, and usually diarrhoea. Pain was not a prominent symptom, though usually present.

Pericarditis and malignant endocarditis were undiagnosed in all cases.

TREATMENT. In addition to the usual regime

of fresh air and nourishing food (when possible), with symptomatic treatment for sleeplessness, cough, diarrhoea, etc., and ergot and quinine, which were given in practically all cases able to retain them, the following special treatments were used:-

Polyvalent Antistreptococcal serum (prepared by the Commonwealth Laboratories) was given in 45 cases, with 15 deaths. This apparently bad result is partly accounted for by the definite tendency to give serum as an emergency measure when the patient was obviously very ill, e.g., one patient was given 20 ccs of serum with 50 ccs of eusol, when moribund with general peritonitis, while others were given one more or less small dose, and in the absence of definite improvement it was not repeated.

Of the fifteen cases given serum, alone, or with eusol, who died, seven were found to have haemolytic streptococci; one non-haemolytic streptococci; one staphylococcus aureus; one staphylococcus albus - an unduly high proportion of haemolytic streptococci for a specific remedy. In the remaining five no bacteriological examination was made.

The dosage varied from 10-170 ccs in one dose, and from one dose of 20ccs to eight doses in six days, of 120 ccs each, in one case; the average was almost 112 ccs in two doses.

From the charts there was apparently some



effect, never very striking, in twenty of the cases who recovered, and in three who died. The tendency is for the temperature to fall, but not the pulse rate. In the case with the very big dosage it is mentioned in the notes that the serum controlled the temperature, because when the 12 hourly dosage was changed to once daily, the temperature rose between doses (about 15 hours after the previous dose). Unfortunately, the Resident being a night bird, the dose continued was given at 1 a.m., and the succeeding rises of temperature in the late afternoon coincided with the onset of pelvic cellulitis. (It would have been more convincing had the serum been given at 1 p.m. and the rise of temperature occurred in the morning).

Even apart from the cases which were quite hopeless, the results of serum <sup>were</sup> ~~was~~ not striking, and leave the impression that it made little, if any, difference.

In no case was there very severe immediate reaction, but serum rash was common, and arthralgia occurred in several cases.

EUSOL was given in 16 cases (9 had serum also); of whom ten recovered and six died. The almost irresistible desire to "do something" is also shown in some of these cases, and no doubt partly accounts for the poor results. It was given in doses of 25-50 ccs with an equal quantity of saline, intravenously, and as a rule was not repeated. It was

followed by a very severe reaction in five cases, "patient unconscious, gasping, and almost pulseless; temperature 104.5°"; "patient had a severe rigor and temperature 106.2°".

From the charts there appears to have been some beneficial effect in eight cases; two or three gave the impression that its combination with serum is useful, though it may be that the extra injections merely employed the time until the temperature fell.

Among the six who died, two had haemolytic streptococci (they were given serum also); two had other organisms - one ? b. influenzae and anaerobic streptococci, and one staphylococcus aureus - no examination was made in the other cases.

Jellett suggests that eusol is good in some of the older cases, but not in very acute sepsis - certainly it does not seem to be the greatly desired specific for puerperal sepsis in the late stages.

NEOKARSAVAN (or novarsenobillon) was used in two or three cases without dramatic effect, and too seldom to confirm or disprove claims made for it. Bourne mentions it with immunotransfusion as being promising theoretically, but not convincingly so in practice.

MERCUROCHROME was used in only one case with an apparently satisfactory result, but the case was not a bad one.

BLOOD TRANSFUSION was performed for anaemia

in six cases, in one of which it was repeated; three had severe reactions, and three, including one with reaction, died of sepsis. In one case the reaction temperature reached the remarkable height of  $108^{\circ}$  and the patient recovered. Immunotransfusion was not used in the series.

VACCINES were not used in the series except in one case, where only one dose is mentioned in the record.

LOCAL TREATMENT:

Warm or hot low pressure vaginal douches were usually given as routine in the puerperal cases, and very frequently in the abortion ones also. Apparently their chief value lies in lessening the discomfort of those with offensive discharge, and there is no evidence that they did any harm, except that they are under suspicion in one or two cases where the perineal sutures tore out.

INTRAUTERINE DOUCHES were given in several cases and two or three puerperal cases were curetted. In both, the numbers are much too small for definite results, but there is no obvious effect either bad or good, although case Number 10554 I. does not impress one with the value of either proceeding, and curettage at least, is now almost universally condemned in puerperal cases.

The method of glycerine irrigation advocated by Dr. Remington Hobbs<sup>15</sup> which, as far as one has been

able to read, is in the remarkable position of meeting with more or less qualified approval only <sup>16</sup>, unfortunately was not tried at all in this series.

Abscesses, when located, were of course drained.

In no case was the abdomen drained for general peritonitis alone; certainly the result could not have been made worse, and as drainage definitely is recommended by Jellett and Eden and Lockyer, and is approved of by Mr. Wyatt <sup>8</sup> (as quoted by I.V.Yoffa), Prof. Blair Bell <sup>7</sup> and Mr. Oldfield <sup>17</sup> (though one of his cases is not very convincing), it seems that it would be worth trying.

#### LOCAL TREATMENT IN SEPTIC ABORTION.

In these cases there still appears to be considerable controversy about treatment, as to whether to curette at all, and if so, when. Hillis <sup>12</sup> of Chicago analyses two series of cases very fully, and decides that it is best not to curette at all during the febrile period, or for five days afterwards, except in the presence of alarming haemorrhage. Ries also favours conservative treatment <sup>18</sup>. On the other hand Becker <sup>19</sup>, Lackner <sup>20</sup>, and Tuttle <sup>21</sup> favour operative treatment (curettag), but their case does not appear so convincing - Tuttle, for instance, has almost all his definitely septic deaths in the "operated-on" group, and still favours it. The available text books



are discretely silent, or dismiss the matter in a few lines, except Fairburn<sup>at</sup>, which gives a short account of the type of case and recommends gentle emptying with the gloved finger if gross masses are present in the uterus.

In this series a temperature of  $100^{\circ}$  F. at any time is taken, in the absence of other obvious cause, as indicative of sepsis. On the day of admission a temperature of about  $99^{\circ}$  is so common that it would appear impossible to decide treatment on that alone, though no doubt it would be safer to wait 24 hours, if the loss is not severe, to see if it settled, and to allow proper preparation of the patient. Included in the list are a few cases that were obviously septic, although the temperature did not rise to  $100^{\circ}$  after admission.

In the D. & C. list a few cases are included in which the ovum was removed with forceps or finger, "no attempt being made to curette".

All abortion cases were curetted as routine soon after admission, but in the febrile group there were some in whom this was delayed or omitted altogether. The few cases in this group, treated expectantly, who had excessive haemorrhage, were temporarily packed (vagina) - there is no evidence suggesting that this made the sepsis worse.

The following lists give the results of treatment in all the septic abortion cases - 201:

A. CASES WITH TEMPERATURE OF 100° OR MORE ON  
ADMISSION.

1. Temperature settled before D.& C., 42 cases.

- (a) Temperature remained normal after  
curettage - 34 .
- (b) Febrile after, normal within 3 days - 5.
- (c) Febrile more than 3 days, recovered - 3.
- (d) Deaths - 0.

2. Expectant treatment only - 37 cases.

- (b) Temp. normal within 3 days - 25.
- (c) Febrile more than 3 days, recovered - 6.
- (d) Deaths - 6.

1 & 2 together, i.e., total cases without active  
treatment or with it delayed till temp. was normal -  
 79 cases.

- (a) and (b) - 64.
- (c) (average 12 days febrile, 26 days in  
hospital) - 9.
- (d) - 6.

3. D. & C. on admission or while still febrile - 71.

- (a) Temp. normal after D.& C. 41.
- (b) Febrile after, normal within 3 days 12.
- (c) Febrile more than 3 days; recovered (average  
23 days febrile, 38 days in hospital) 13.
- (d) Deaths 5.

B. CASES WITH TEMPERATURE BELOW 100° ON ADMISSIONBUT OVER IT AFTER D. & C. - 46.

- |  |     |
|--|-----|
| (b) Temp. normal within 3 days                 | 33  |
| (c) Febrile more than 3 days; recovered        | 10. |
| (Average 9 days febrile, 23 days in hospital). |     |
| (d) Deaths                                     | 3.  |

Of these, 24 cases, including one who died, had a temperature between 98.8° and 100° before D. & C.

C. CASES ADMITTED FOR SEPSIS AFTER CURETTAGE OUTSIDE- 5.

- |                              |    |
|------------------------------|----|
| (b) Normal in 3 days         | 1  |
| (c) Febrile more than 3 days | 2  |
| (d) Deaths                   | 2. |

These five are not included in the consideration of results of treatment by curettage or otherwise.

The delay before D. & C. in the majority of cases in group A.1 was from one to three days, so it may be taken that as far as the temperature was concerned, the cases in all sub-groups (a) and (b) would equally be ready to return home in about a week or ten days. A number were kept in longer on account of anaemia or general debility, and a few for further operative treatment, such as ventrosuspension, but these were not affected by the treatment given for the abortion.

Taking then the forty-six severe cases and deaths in sub-groups (c) and (d), there were three bad

cases and no deaths where D. & C. was delayed, and six bad cases and six deaths where there was no active local treatment. These nine bad cases had an average of twelve days fever and twenty-six days in hospital, and included:-

1 tubo-ovarian abscess which was excised and drained abdominally (8729 I).

1 early salpingitis - laparotomy with drainage, followed by double pleuro-pneumonia (3340 K).

1 case of thrombosis of varicose veins of leg  
(7754 K).

1 case of parametritis (9790 I).

1 case of very profound anaemia (3109I).

The remaining four had no definite lesion.

The six deaths were due to:-

(1) Septic phlebitis or erysipelas of leg and ? general septicaemia, eight days after admission, and eighteen days after abortion (688 K).

(2) B. Welchii septicaemia, a few hours after admission (3609 K).

(3) ? Pyaemia - a week after admission (6400 I)

(4) Advanced general peritonitis, four days after admission and eight days after abortion (9762 I).

(5) Pyaemia and double empyema following pelvic abscess (10352 I).

(6) Haemolytic streptococcal septicaemia nine days after admission (4869 I).

It is inconceivable that curettage at the

time of admission could have saved any of the first five of these lives. The sixth patient was already very ill at the time of admission, but as the culture was not taken for several days, it is impossible to say whether the septicaemia was already established. If not, it seems probable that curettage would have had at least as good a chance of hastening as of preventing it.

On the other hand, in the Group with early active treatment, thirteen of seventy-one had a more or less prolonged illness, being febrile on an average for twenty-three days, and in hospital thirty-eight days, and five other patients died.

The bad cases included:-

- 1 who had a pelvic abscess and was in hospital 15½ weeks (8321 I).
- 1 pulmonary collapse (8982 I).
- 1 pulmonary infarct with infected pleural effusion (10080 I).
- 1 empyema (9618 I) who recovered in 2½ months.
- 2 cases of thrombosis of veins in leg (6574 I and 5755 K).
- 1 patient was crushed and it was doubtful whether there was not also internal injury (7206 K).

The remaining six had no definite lesion.

The five deaths were due to:-

- 1. Probable B. Welchii septicaemia, 12 hours after admission (703 K).

2. General peritonitis, one day after admission (10582I).
3. Thrombosis of both ovarian veins and vessels of both lungs, eight days after admission and six after D. & C. (3744 I).
4. Early peritonitis and ? septicaemia, three days after admission (10316 I).
5. Double salpingitis and pelvic abscess (8239 K).

The first two certainly, and the last two probably would have died without curettage, which at the best was useless, and at the worst merely hastened the end. In the third case it is doubtful if curettage did any harm, but it certainly did no good, and it was quite incomplete.

So far then, the deaths were not definitely influenced by the presence or absence of active treatment - at the stage at which they reached the hospital all, except possibly two, would almost certainly have died whatever was done.

The bad cases, however, were more numerous and more severe in the group which had curettage performed while still febrile.

In group B there were ten severe and three deaths which really belong to the larger group of 270, whose temperature was below  $100^{\circ}$  on admission, and of whom 224 remained below  $100^{\circ}$ , and without signs of sepsis, nearly all having been curetted. Twenty-four of the forty-six who became febrile, including seven of the ten bad cases, had a temperature between



98.8° and 99.9° before curettage, and of these one died.

Included in the ten bad cases are:-

- 1 with pelvic abscess (3622 I).
- 1 with tubo-ovarian abscess (10514 I).
- 1 with piece of placenta left and who settled at once when it was passed spontaneously (7914 K).
- 1 with urinary infection, ? alone, (10491 I).
- 2 cases of pleurisy (10838 I and 5929 K).
- 2 had profound anaemia (8948 I and 4550 I)

The remaining 2 were indefinite.

Their average duration of fever was nine ~~da~~ days, and stay in hospital 23 days.

The three deaths were due to:-

- (1) Acute sepsis with death in three days following removal of vesicular mole (5492 I).
- (2) Septic endometritis, pyaemia, and malignant endocarditis (7689 K).
- (3) Died of sepsis eleven days after D. & C. (5835 I).

The bad cases in this group are definitely less severe than in the other two, and perhaps the only conclusion to be drawn is that it would be safer to let the indefinite temperature go up or down before deciding treatment. In the case of those who died, the first had to be emptied and was a bad operative risk. It is in a way unfair to the group to place the other two in it, but on admission there was nothing to distinguish them from many others - even the high temperature present outside hospital, and absent on admission, is

not very unusual. The second case was definitely worse after the second curettage performed when she was certainly very septic, but it could not influence the ultimate result. The third patient was probably syphilitic and was a quarter-cast Samoan native, both factors tending to lower resistance to infection.

The group C cases though bad, are not considered as their condition before curettage was unknown.

CONCLUSION: In this series of 201 septic abortions curettage apparently caused no deaths, though it may have hastened a few, and as far as can be judged by the record it probably saved no lives.

The cases which became worse after curettage while the temperature was up, were more numerous and more severe than those after other treatment, and therefore it is better to let them settle before curetting, if this is then necessary. The delay in the majority of cases was only 1-3 days (Hillis<sup>12</sup> recommends five days afebrile).

It is hardly necessary to add that a curettage which leaves substantial pieces of foetal tissue behind, would be better left undone.

S U M M A R Y.

In a series of 201 febrile abortions, and 82 puerperal pyrexia cases under treatment in the Public Hospital, Auckland, during two years, there were 71 febrile more than three days, and 35 deaths almost equally divided between abortion and puerperal cases. This suggests that septic abortion deserves fuller mention in textbooks.

The lesions and bacteria present are those usually found, but with a relatively high proportion of general peritonitis, and perhaps of infection with *B. Welchii* and staphylococcus aureus.

In dealing with causes it seems that the possible connection with respiratory, <sup>dental</sup> and other remote and blood borne infections merits further investigation.

In addition to the usual routine general treatment, a number of cases were treated with serum or eusol, but the results indicate that they made little, if any, difference. Of the septic abortions the results slightly favour conservative treatment while the temperature remains elevated.

Appended are summaries of most of the more severe cases - one of straight out <sup>empyema</sup> eupyema (9618 I), several of thrombosis of leg veins, and one or two others, not very interesting, are omitted.

In conclusion, it is a pleasure to acknowledge my indebtedness to Dr. Maguire and the members of the Honorary Staff of the Hospital for access to records of the cases under their care.

*Andie Wamock*

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SUMMARIES OF THE WORST CASES.

PUERPERAL DEATHS.

3299 I. Aet. 28. Para. 1.

Patient very toxic and slightly delirious. Vague story of delivery 24 hours before admission. Said to have had leucorrhoea before delivery and to have required incision of the vagina and cervix for previous scarring.

Tongue dirty white coating, drying.

Pulse rapid, small, feeble and thready.

Examination otherwise fairly negative.

Deep laceration up posterior wall of vagina and posterior lip of cervix. Repeated rigors.

T. 100-103° P. 108-140. R. 30-42.

Examined under general anaesthesia, but nothing could be done.

TREATMENT: Antistreptococcal serum, 2 doses of 40 ccs. each on 2nd and 3rd days - no effect. Ergot and quinine and douches. Died 4 days after admission, 5 after delivery. No p.m. No bacteriological examination made.

4028 I. Aet. 41, Para. 11.

Confined 6 days ago. This and all previous confinements very easy. Had no trained attendant. Apparently well until day of admission, when her husband returned home and found her collapsed and



delirious.

G.O.A. neglected and not clean. Collapsed, greyish and slightly cyanosed.

Tongue dark fur - drying.

Teeth Offensive.

Pulse somewhat thready, 132.

Incontinence of faeces. Uterus subinvolved.

Urine - no albumin or sugar.

TREATMENT: 100 ccs Antistreptococcal serum in 2 pints saline intravenously. Stimulants.  
Died same night.

P.M. Subinvolution of uterus. Oedema of uterus, tubes and broad ligaments. Thrombosis of right uterine veins and of both ovarian veins to the inferior vena cava, and left renal vein. Acute cerebral oedema.

BLOOD CULTURE: P.M. - intracardiac. Haemolytic streptococcus of exceptional growth activity.

5754 I. Aet. 32. Para. 4.

Two days ago had pain in chest, rigor, fever, cough with sputum. Patient at term, slight hydramnios. Signs of pneumonia at left base; spontaneous delivery on day of admission  $4\frac{1}{2}$  hours later. Two days later effusion at left base, 400 ccs aspirated. A week later still fluid; 10 days later empyema.

Temperature variable between  $97^{\circ} + 103^{\circ}$ .

Pulse 120 - 168. R. 30-48.

TREATMENT of pneumonia.

Died before operation - 20 days after delivery.

P.M. Purulent pericarditis. Heart pushed to right. Large empyema -  $3\frac{1}{2}$  pints, in left pleura.

Left lung collapsed, right oedematous. Some perisplenitis. Uterus clean - pelvic veins engorged.

P.M. CULTURE from empyema pus - pure culture of streptococci.

7277 I. Aet.25. Para ?.

Normal confinement 4 days ago. Lochia scanty till 1 day ago.  
Exam. negative, but 5 days later a mass suggestive of pelvic abscess was felt through the right fornix. This was not incised and 10 days later had disappeared. Developed bladder trouble requiring insertion of de Pezzar catheter, and 2 days after this started to hiccough and vomit, and suddenly died.  
Temp.  $98^{\circ}$  -  $103.8^{\circ}$ . Pulse 96-120. R. 24-30.

TREATMENT: 30 ccs of serum on first day.

Ergot and quinine, douches and symptomatic.

Duration  $3\frac{1}{2}$  weeks from confinement.

P.M. Advanced general peritonitis, double empyema. Broncho-pneumonia. Small abscesses in kidneys; vagina normal, cervix slightly eroded. Inner surface of uterus inflamed, but clean. Double

pyosalpinx. Pouch of Douglas obliterated by adhesions. Small subperiton<sup>ea</sup> abscess on post. wall of uterus. No thrombosis.

P.M. Culture for peritoneal pus - haemolytic streptococci.

8784 I. See attached chart.

Treatment with intravenous eusol and antistreptococcal serum.

She had had intrauterine douches on 2 occasions before admission - Dec. 13th (after delivery), and 19th.

10524 I. Aet. 27. Primipara.

Confined 2 days ago. She was supposed to be a month overdue. Labour lasted 36 hours, and ended in a difficult forceps delivery with much trauma. Child died in few hours. Next morning temp. was  $104^{\circ}$  and patient collapsed, but revived. On morning of admission temp. again rose to  $104.5^{\circ}$  with collapse and unconsciousness. On admission temp. was  $103^{\circ}$ , pulse 130, resp. 36, and patient unconscious and apparently severely shocked. Examination otherwise negative, except that the vaginal laceration appeared unhealthy.

TREATMENT - that of shock.

Died in 2 hours - 2 days after delivery.

P.M. Haemolysis in endocardium and aorta.

Gas formation in lungs.



# Auckland Hospital.

Reg. No. \_\_\_\_\_

## THERMIC CHART.

Honorary \_\_\_\_\_

Name Carl 33 yrs. Paw 7.

Reg. No. 87849.

Ward In maternity, hospital 6 days & severe albuminuria. Manual removal of

Medical Officer putting forth placenta 13.12.26

Admitted 31.12.26

Date	31	1	2	3	4	5	6	7	8	9	10								
Day of Disease	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M
108°																			
B.P.																			
m.m.																			
Hg.																			
280 106°																			
260 105°																			
240 104°																			
220 103°																			
200 102°																			
180 101°																			
160 100°																			
140 99°																			
120 98°																			
100 97°																			
80 96°																			
60 95°																			
Pulse	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M
Resp.	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M
B.P.																			
Sleep																			
Bowels																			
Urine																			
Q																			
Sp. gr.																			
Alb. &c.																			

Remarks: Had had vaginal douches prior to delivery. Had 2 intrauterine douches after delivery. Had abscess left buttock opened day before admission. Temp. & pulse elevated between delivery & admission. <sup>24.30/12.26</sup> ~~cont.~~ Tongue coated. Still slight edema. Slight tenderness in lower abdomen. Blood culture streptococci - weakly haemolytic. (31.12.26)

10M/1/28 Alpe Bros. & Co., -12877

Went steadily downhill. Died 10.1.27. No post.



Toxic changes in abdominal viscera. Uterus clean except for very small piece of membrane. No sign of inflammation. Fibrous exudate on left ovary. Laceration of vagina with necrosis.

P.M. Cultures (1) from uterus, haemolytic streptococci; (2) From blood, streptococci, bacillus Welchii; anaerobic and aerobic staphylococci and B. coli.

76 K. Aet. 38. Para. 1 (7 yrs.).

Confined 18 days ago, easy, but required manual removal of placenta. Haemorrhage was excessive. Dyspnoea and syncope on 12th day; former persisting. Excessive vomiting. Albumin and sugar in urine (Blood sugar .166%). W.B.C. 26,500. Extreme anaemia. Impairment at left base. Examination otherwise negative.

T.  $100.6^{\circ}$  -  $96.4^{\circ}$  . Pulse 120-132. R. 36-30.

TREATMENT: Ergot and quinine and symptomatic.

Died 3 days after admission; 3 weeks after delivery.

No. P.M.

Blood Culture sterile.

1057 K. Aet. 35. Para 4.

Child died of meningitis and as result patient went into premature labour (8 months), with very severe antepartum haemorrhage. Was admitted in condition of profound shock, with uterus in tonic

contraction, and still bleeding. Delivered next day, little loss, but patient was very weak. Four days later she developed a breast abscess and 11 days later plegmasia alba dolens.

T. (on admission)  $96.4^{\circ}$ . P. 146. R. 32.

Later Temp.  $99^{\circ}$ - $103^{\circ}$ . Terminal  $105^{\circ}$ .

Pulse 100-120. Resp. 30-40.

TREATMENT: Blood transfusions on day of admission  $\frac{3}{4}$  XX and 2 days later  $\frac{3}{4}$  XVI. Also subcutaneous saline. Breast abscess opened 3 times. Symptomatic.

Died in 3 weeks. No. P.M. and no cultures.

1333 K. Aet. 26. Primipara.

Admitted unconscious. Nurse gave history that she had had a protracted labour ending in craniotomy for "abnormal position" 5 days ago. Haemorrhage free. She was given subcutaneous saline, and the perineum was sutured and she recovered well. Two days ago had depression with visual hallucinations, and soon afterwards collapsed. She was given stimulants, but became restless, irrational, thirsty, and then unconscious.

C.O.A. unconscious. Examination negative, except for crepitations and harsh breathing at both bases. Uterus subinvolved.

T.  $104.8^{\circ}$ . Pulse 160. R. 54.

TREATMENT stimulant.



Died in 4 hours - 5 days after confinement.

P.M. Oedema of lungs. Petechiae in epicardium and pleura. Marked toxic changes. Uterus large and soft. Inner wall shows blood stained septic fluid. Small piece of placenta remaining. Cervix severely lacerated and necrotic. Vagina lacerated and necrotic. No thrombosis.

CERVICAL SWAB "no streptococci isolated".

BLOOD CULTURE - Sterile antemortem, B. coli only, postmortem.

1390 K. Aet. 33. Para 3.

Confined 6 days ago, easy and spontaneous. Dr. stated that patient had been ill during the last 6 weeks of pregnancy - anorexia, vomiting and anaemia, but had no albuminuria or jaundice. There was free haemorrhage after delivery of the placenta, and the lochia was offensive for 2 or 3 days. No pain. Constipated.

C.O.A. Pale and emaciated, but in no distress. Skin dusky and sallow. "Liver diminished in size".

Uterus well involuted. Exam. otherwise negative.

Blood pressure 120 systolic, 75 diastolic.

Blood count - reds 1,400,000;

whites 6,700.

Haemoglobin 20%.

Colour index .7.

Differential count - polymorphs 61.5%

Lymphocytes 15.5%

Eosinophils .5%

Transitionals 4%

Myelocytes 18.5%.

Slight polychromatophilia, stippling, and marked variations in size of reds. Occasional megalocytes and macroblasts.

T.  $101.2^{\circ}$  -  $99^{\circ}$ . P. 124-120. R. 26-24.

TREATMENT: Quinine and ergot and douches.

Given 40 ccs serum when moribund. Collapsed and died suddenly one day after admission, and 7 days after delivery. No p.m.

BLOOD CULTURE: Staphylococcus albus only.

1788 K. Aet. 46 yrs. Para 2 (1 abortion).

In labour for 12 or more hours with no progress. Failed forceps outside. Stout elderly woman with considerable oedema. Os. fully dilated; large caput, head jammed against symphysis. Signs of peritonitis present 3 days after operation - distension began on first day and was very marked.

Temperature on admission  $96.8^{\circ}$  later  $97^{\circ}$ - $100^{\circ}$ .

TREATMENT: Caesarian section soon after admission - uterus swabbed with eusol and flavine.

Much stimulant treatment for bowel.

Symptomatic.

Died 5 days after admission.



P.M: Congestion and oedema of lungs with pleurisy and bronchitis. Heart muscle poor. Peritonitis - early - with much distension of bowel and some petechial haemorrhage. Kidney cortex somewhat diminished. Vagina shows submucous haemorrhage and ulceration. Cervix sloughing, gangrenous and blackish. Uterus large and soft. Caesarian incision has sloughed and appears black and gangrenous.

Cultures - not made.

2475 K. Aet. 23 yrs. Primipara (unmarried).

Hyperemesis during pregnancy. Cold and cough towards end. Short easy confinement 3 days ago. Cold worse since.

Purulent exudate on right tonsil. Crepitations at both bases. Examination otherwise negative.

T.  $99^{\circ}$ - $102.8^{\circ}$ . P. 96-140. R. 24-32.

TREATMENT: Serum 20ccs before admission and 80 ccs. 50 ccs and 50 ccs on 2nd, 3rd and 5th days after admission.

Douches (vaginal) and ergot. Symptomatic.

Died 6 days after admission, 9 after confinement.

P.M: Slight pneumonia, early peritonitis, toxic changes. Uterus large and soft with necrotic lining. Cervix ragged, soft and black.

CERVICAL SWAB: Few diphtheroids and staphylococci only. Blood culture sterile.

P.M. smear from uterus showed streptococci, staphy-

staphylococci and B. coli.

2540 K. Aet 25 years. Para 2.

Had a cold during the last week of pregnancy. Labour 6 days ago, short, easy and natural. On the following day her right calf was painful and red, and she had also abdominal pain and breathlessness. Next day diarrhoea started and lasted 3 days. C.O.A. Flushed, cheerful, sordes on lips. Broncho-pneumonic type of respiration. Tongue thickly furred but moist. Impairment at right base. Septic phlebitis right calf - haemorrhage occurred into this area later. Lochia slightly offensive. Abdomen very tender.

Temp.  $99^{\circ}$ - $104^{\circ}$ . P. 130-160. R. 30-52.

TREATMENT: 4 doses of serum on 3rd, 4th, and 5th days - 50, 60, 60, 60ccs. No effect. Symptomatic.

Died 11 days after admission - 17 after delivery.

P.M.: Early broncho-pneumonia, fibrinous pleurisy. Haemolysis in endocardium. Advanced peritonitis. Advanced toxic changes. Uterus large - unhealthy cervical tear. Some adherent necrotic placenta. Thrombosis of right ovarian vein in its whole length and slightly into the inferior vena cava.

Culture from Cervix and Blood (day after admission) pure haemolytic streptococci.

2771 K. Aet. 21 years. Para 1.

Confined 15 days ago - normal easy labour but severe post partum haemorrhage and collapse. Had cold and cough before delivery and it was very troublesome after. On several occasions had free loss of blood and passage of clots between delivery and admission.

C.O.A. Moribund. Teeth filthy. General examination fairly negative.

Temp.  $96^{\circ}$ . P. ? 120. R. 70.

(Temp. ran  $98^{\circ}$ - $103^{\circ}$  before admission and once reached  $107^{\circ}$  on the 10th day.)

TREATMENT: - Died during preparation for blood transfusion.

Had had 90ccs of serum before admission.~~also~~.

Died 15 days after confinement.

P.M. Oedema of lungs, general peritonitis, marked toxic changes. Uterus enlarged and contained a piece of necrotic placenta 2 inches long. Its lining was necrotic. Thrombosis in broad ligaments and whole length of ovarian veins.

Culture not made.

2905 K. Staph. aureus puerperal septicaemia. See attached chart.

P. M. Pleurisy and numerous septic infarcts in both lungs. Other organs - general toxic change. Uterus was soft and contained blood clot,



### THERMIC CHART.

*Honorary.*

Name

Acc. 394 - P. 6.

Reg. No.

2905 K.

Ward

Completed 27.7.25.

different instrumental clewings

Medical Officer

Pregnancy normal.

Admitted 1.8.27

[illegible]

Remarks: Well for 3 days, then rigors paroxysmally, every  
hour till admission. Difficulty & frequency of micturition.  
1 stool in perineum. Impaired respiration & creps. at both bases.  
Blood culture 2-8-27 Staph. aureus. Died 3-8-27.  
P.M. diagnosis - purpural endometritis, pyaemia, septic infarcts in  
lungs. (copy of notes of exam. on back of chart.)



The body is that of a stoutly built woman.  
Rigor mortis present.

oesophagus } nothing to note.  
pharynx }

Trachea } greatly congested. Bronchi contain frothy fluid.  
Larynx }

Left lung fibrous exudate over whole organ.

numerous septic infarcts visible on surface.

On section - several infarcts are semipurulent.

Right lung pleurisy & infarcts as in left lung, but  
infarcts are rather smaller.

Heart Traces of atheroma of subendocardium & aortic cusps.

The heart is soft & muscle pale. Muscle of  
left ventricle friable.

aorta healthy but intima shows a slight pink  
stain.

Liver fatty & toxic change.

Spleen large, congested, semipurulent.

Stomach Dilated, filled with ferment fluid.

Intestines Dilated: bubbles of gas between layers of mesentery.

Kidneys Acute toxic change.

Uterus R. slightly dilated. L. normal.

Perineal Organs Vagina congested but healthy.

There is a sloughing tear of perineum about 2" long.

adjacent surface of right labium is ulcerated.

anus shows a lateral shallow tear: it is dark &  
angry looking. There are one or two small ulcers in  
cervical canal.

Uterus Soft: on section cavity shows blood clot  
& some placental debris. No evidence of any  
suppuration. In the muscle of uterine wall on  
right side there is a septic thrombosed vein.  
No evidence of thrombosis in any of veins of broad ligament  
pelvic or iliac vessels.

Diagnosis: Purpura endometritis, pyaemia, Septic infarcts in lung.



and some placental debris. No sign of suppuration in it. One vein septic and thrombosed. Cervix-inflamed, bilateral shallow tear and few ulcers. Sloughing perineal tear 2 inches long.

3261 K. Aet. 23 years. Primipara.

Confined 17 days ago, difficult labour lasted 2 days. Perineal tear was sutured at the time. Relatives said she looked feverish from the third day. Began to have pains in limbs about the 14th day. Moribund when admitted - facies hippocratica, dry brown tongue, thirst. Abdomen distended and tender. Had simple goitre. T.  $103^{\circ}$ . P. 160.

TREATMENT: Symptomatic only.

Died in  $8\frac{1}{2}$  hours, 18 days after confinement.

P.M. Purulent pericarditis, bronchitis, pleurisy, advanced general peritonitis; uterus contained pus. A perineal tear 1 inch long was septic. Other organs - toxic changes.

P.M. Cultures from Peritoneal and pericardial fluids gave growth of haemolytic streptococci alone.

3588 K. Aet. 18 years. Primipara.

Admitted unconscious with eclampsia, chest waterlogged. She had had a cold and cough for about a week. Given strict treatment - lavage, morphia,

mag. sulph. etc. for about 18 hours, during which she <sup>and continued to have many convulsions,</sup> became steadily worse<sup>A</sup> and as she was not in labour and was obviously going to die very soon from the chest condition, she was delivered by classical Caesarian section under local anaesthesia (male twins, stillborn). She made a dramatic recovery from the eclampsia, but cough remained very troublesome, and in 6 days lower end of abdominal wound gave way and had to be resut<sup>u</sup>tered. 3 days later the intravenous wound in the arm (venesection and injecting<sup>on of</sup> saline) became inflamed. There was some discharge from abdominal wound<sup>n</sup>, which, however, healed, except a small area. Had purulent discharge p.v. Developed pain<sup>s</sup> and signs of consolidation of upper area of left apex, followed by sudden collapse and signs of pneumo-thorax. Became gradually worse thereafter. T. 102°-103° before delivery. Settled temporarily afterwards; later ran 98°-103°.

TREATMENT of eclampsia, douches and symptomatic. Died 6 weeks after delivery.

P.M. Skin incision still not healed. Hernia present in wound. Heart pushed to right. Left pleural cavity contained 80 ounces of thin, purulent fluid and air under pressure. Lung completely collapsed. Ruptured abscess at apex. Right lung flabby and compressed. Uterus, Caesarian wound covered with slough and shows no attempt at healing. Loops of small intestine adherent to it. Old friable

clot in right uterine vein. Other organs showed toxic changes.

4950 K. Aet. 29 years. Para 5 (3 miscarriages and 1 premature).

Epileptic, Wassermann positive. Admitted 6 days after confinement at 7 months. Placenta unhealthy and offensive. Lochia offensive. Had had postpartum haemorrhage. Complained of colicky abdominal pain. Examination negative.

T.  $98^{\circ}$  -  $101^{\circ}$ . P. 100-140. R. 24-48.

TREATMENT. Douches and symptomatic only.

Died 5 days after admission; 11 after labour.

P.M. Early hypostatic pneumonia with numerous infarcts. Peritonitis and pericarditis. Septic metritis and thrombosis in left broad ligament veins. Lining of uterus necrotic.

Cultures not made.

8034 K. Aet. 27 years. Primipara.

Confined 4 days ago - twins - both breech and not difficult. 24 hours labour. Perineal tear sutured. Had acute pain in left loin from 1 hour after delivery. Acute abdominal distension also started at once. Slight vomiting. Had also pain in middle of sternum and neck and in right loin, Both loins were bulging and tender. Many borborygmi.

Temp.  $100^{\circ}$ - $102.6^{\circ}$ . P. 120-130. R. 30-40.

TREATMENT: 90 ccs serum intravenously.

Died 2 days after admission, 6 days after labour.

P. M. Congestion of lungs and early pleurisy. Small recent vegetation on posterior mitral cusp. General peritonitis with great distension. No thrombosis. Uterus was large and soft and covered with gangrenous material inside. Slight laceration of cervix. Advanced pelvic peritonitis on left side.

BLOOD CULTURE pure culture of haemolytic streptococci A.M. and same from uterus and peritoneal fluid p.m.

#### POST-ABORTIONAL DEATHS.

3744 I. Aet. 36 years, Para 7 (1 abortion).

3 months pregnant - abortion 6 days ago.

Haemorrhage, nausea and vomiting since.

Thin, anaemic and weak looking. Tenderness in hypogastrium. Uterus palpable nearly to umbilicus and tender.

T. 99.4° before D. & C. 97°-N. after it. P. 128 before, 88-108 after.

TREATMENT: Ergot and quinine. D.& C. on 2nd day. Blood transfusion on 8th day. Died 8 days after admission, 14 after abortion.

P.M. Small piece of septic placenta firmly adhered to uterine wall which was soft and friable. Thrombosis of both ovarian veins and vessels of both

lungs. Toxic changes.

Cultures not done.

4869 I. Aet. 40. Para ?.

Took pills two months ago when 2 months pregnant, and has had haemorrhage since, but never very severely. Does not know if foetus was passed.

Examination on admission was negative.

On last day it was noted "chest full of fluid".

T. 101°-103°. P. 120-140. R. 32-60.

TREATMENT: Conservative. Given 70 ccs serum on each of 2nd and 3rd days - no definite effect. Not continued. Ergot and quinine and stimulants. Died 9 days after admission.

P.M. Lung oedematous and all serous cavities filled with fluid. Fatty change in all organs. Uterus contained a small mass of placental tissue but no pus and no signs of inflammation.

BLOOD CULTURE Haemolytic streptococci.

P.M. culture from uterus, haemolytic streptococci (pure).

5492 I. Septicaemia following removal of vesicular mole. See attached chart. Died on 4th day. No P.M. Cultures not made.

5835 I. See attached chart.

Patient a quarter-cast native (Samoan) with strong suspicion of syphilis.



Reg. No. ....

### THERMIC CHART.

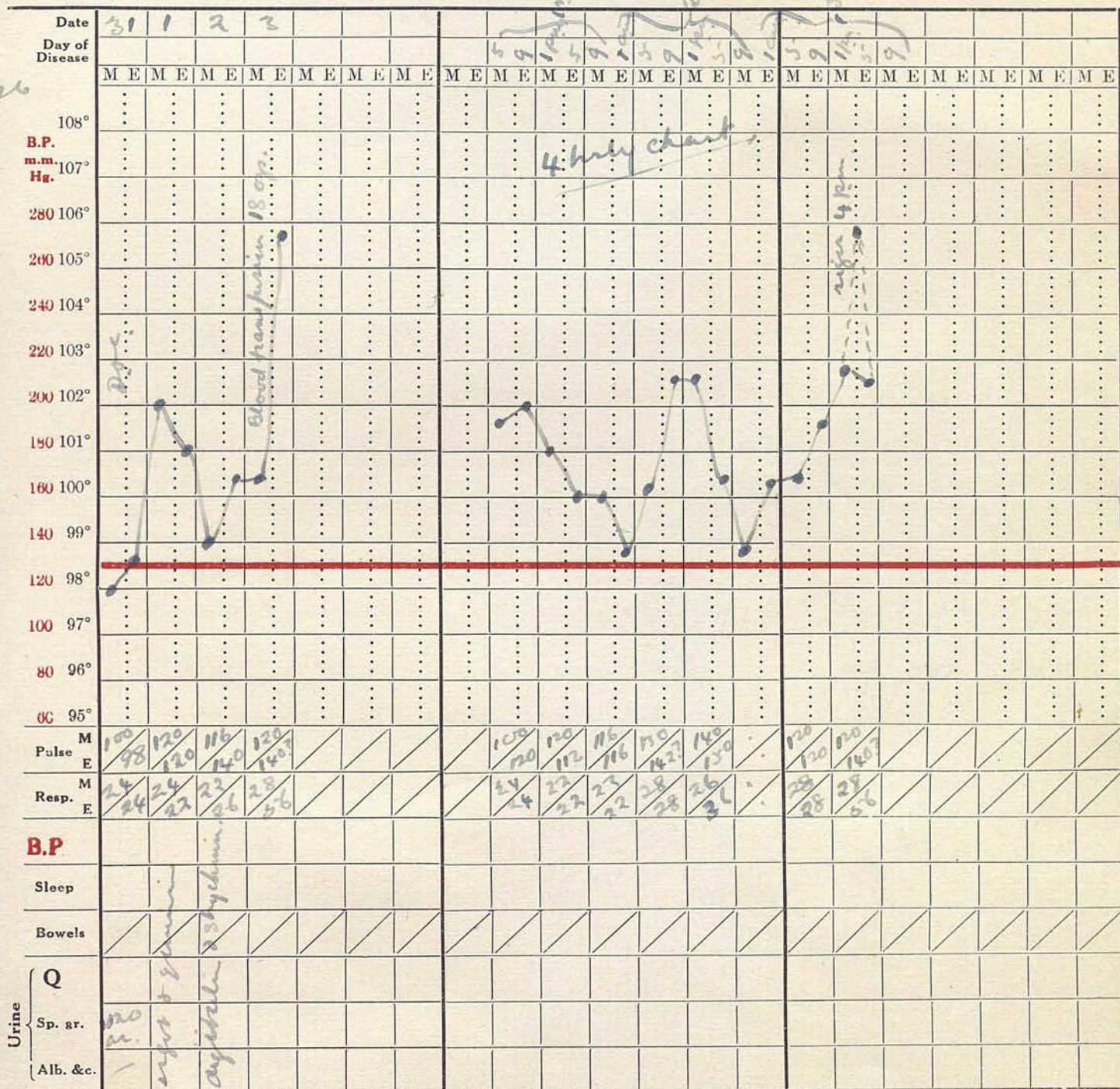
Honorary.....

Name Act. 27 yrs. P.I.

Reg. No. 54929

Ward

Medical Officer *Admitted 31.7.26*



Remarks: Nursing infant 6 wks. old. Irregular bleeding for  
6 weeks & lower abdominal pain for 2 weeks. Very anaemic.  
Systemic exam. otherwise negative. Uterus just above umbilicus.  
Vesicular note removed & ovum forceps on day of admission &  
vagina was tightly packed for few hrs. for haemorrhage. Patient was  
very distressed afterwards & had signs of peritonitis on 2nd day. Transfusion  
was followed by some reaction & death in 6 hrs. Rx. refused.

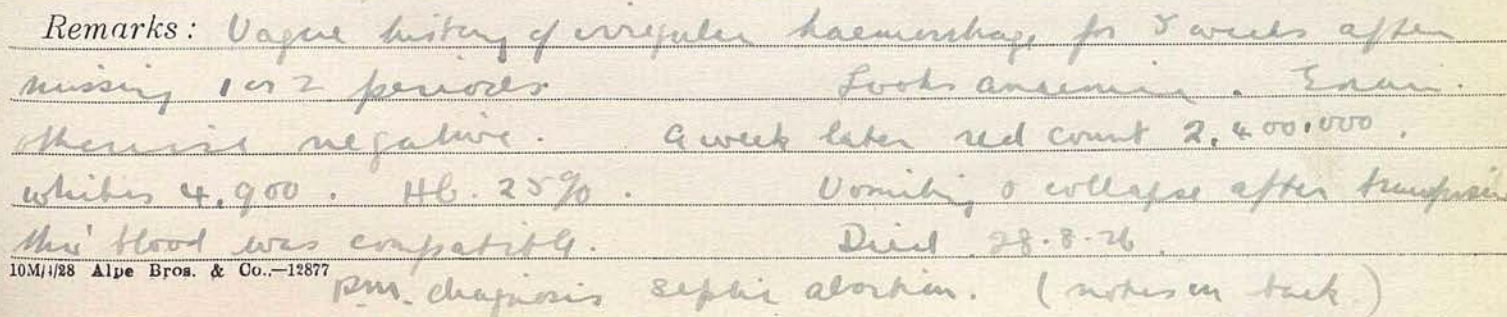


## Reg. No. ....

*Honorary* .....

Reg. No. 58359.

Medical Officer *Admitted 15.8.26*





pm. 30.8.26

The body is that of a rather emaciated quarter caste Samoan. Rigor mortis present.

There are petechiae on chest wall.

Heart practically empty. Petechiae in the epicardium.

The myocardium is flabby & pale, the valves normal. A small purpuric patch occurs in the wall of the left ventricle. (Unfortunately the waist was not taken but her husband had advanced syphilis a year later, am.)

Lungs pleurae free. Recent haemorrhages are present in the lung substance & under the pleura in the posterior parts of the lower lobe of each lung. The upper lobes are very pale. Both lungs are oedematous.

Liver moderate degree of fatty change. It gives a distinct reaction for haemosiderin.

Spleen normal size. Haemosiderin present in small amounts.

Kidneys There are petechiae on the surface. Give a very slight haemosiderin reaction. Cut surface shows extreme pallor. There is a recent small haemorrhage into pelvis of right kidney.

uterus not enlarged. Loose necrotic tissue - probably blood clot - is present in the cavity & in the upper part of the vagina.

Small haemorrhages occur on the mesentery & on the mesocolon.

Cause of death - septic abortion.

P.M. Petechial haemorrhage in chest wall and epicardium. Myocardium flabby and pale. Small fibrous patch in wall of left ventricle. Lungs oedematous. Recent haemorrhage in lung substance and into pelvis of right kidney. Liver, spleen and kidneys give haemosiderin reaction. Necrotic blood clot in the uterus. Other organs toxic.

6400 I. See attached chart.

2 months abortion with very marked jaundice and haematuria.

Organisms from cervix and urine mixed, anaerobic, not definitely diagnosed.

Blood culture sterile. No. P.M.

9762 I. Aet. 26 years. Primipara (unmarried).

Right sided pain, vaginal haemorrhage, and vomiting for a week. Abortion supposed complete 5 days ago. Signs suggestive of pelvic peritonitis. Temp.  $102^{\circ}$  fell by lysis to normal. Pulse 140-120.

TREATMENT: Foments, ergot, quinine and douches. Laparotomy on 4th day. Died 4 days after admission.

P.M. Some fluid in both pleurae and pericardial cavity. Advanced peritonitis, especially in pelvis. Partial collapse, oedema and congestion of lungs and pleurisy on diaphragmatic surfaces of both lungs. Toxic changes.



## Reg. No. \_\_\_\_\_

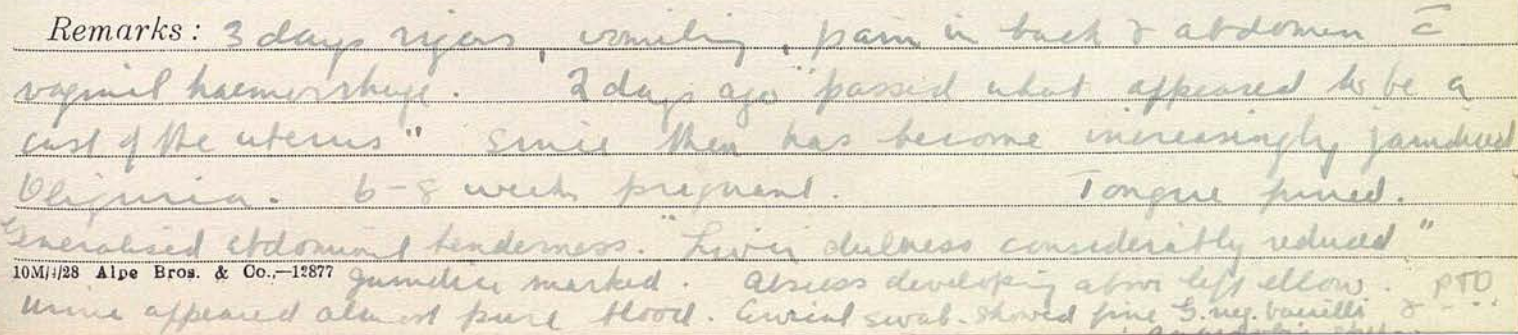
## Honorary .....

Reg. No. 64009.

Ward

Medical Officer

admitted 9.9.26. died 16.9.26 PM refused





9.9.26 urine, catheter spec,  
Specimen consists chiefly of blood.  
Film RBCs & no apparent excess of leucocytes.  
no casts or crystals seen.  
aerobic cultures showed nothing except a  
contaminating organism.  
anaerobic cultures showed a streptococcus  
& a bacillus, large, & subterminal spores.  
Blood culture sterile.

13.9.26 Cervical swab:  
Direct films show many pus cells & RBCs.  
Large numbers of bacteria present, chiefly  
Gram pos. & Gram neg. cocci.  
Cultures Fine Gram neg. bacilli resembling  
B. Influenzae, also a few colonies of  
Streptococci grow anaerobically.  
Attempts to subculture these were  
unsuccessful.

Uterus and appendages bathed in pus. Uterus considerably enlarged and contains necrotic and septic debris. ~~debris.~~ No thrombosis.

Culture from abdominal pus at operation showed nonhaemolytic streptococci. Blood culture gave staphylococcus albus and bacillus alkaligenes.

10316 I. See attached chart.

<sup>5</sup>  
10362 I. Pyaemia case following 4 months miscarriage. See attached chart.

Patient lived 2 months after admission.

P.M. Pockets of pus in both pleural cavities originating in pyaemic abscesses in lungs. Uterus small, wall healthy, pulled to right by inflammatory fibrosis. Pockets of pus on right side of uterus and between uterus and bladder and sigmoid on left side. Cervix eroded. Cervical swab not taken.

Blood culture sterile twice.

10582 I. Aet. 24 yrs. primipara (unmarried).

History of about 4 months amenorrhoea. Abdominal pain and haemorrhage P.V. for about 6 days. Tongue dry and coated. Lower abdomen very tender. T. 100°-102°. P. 120-150. R. 30-50.

TREATMENT: D. & C.

Intravenous eusol 50 ccs and 20 ccs. of serum next day. Ergot and quinine and douches.



## Reg. No. ....

*Honorary* .....

Reg. No. 103167.

Medical Officer *admitted 26.2.27 6.3.27.*

ms 927

10M/1/28 Alpe Bros. & Co.—12877



# Auckland Hospital.

Reg. No. \_\_\_\_\_

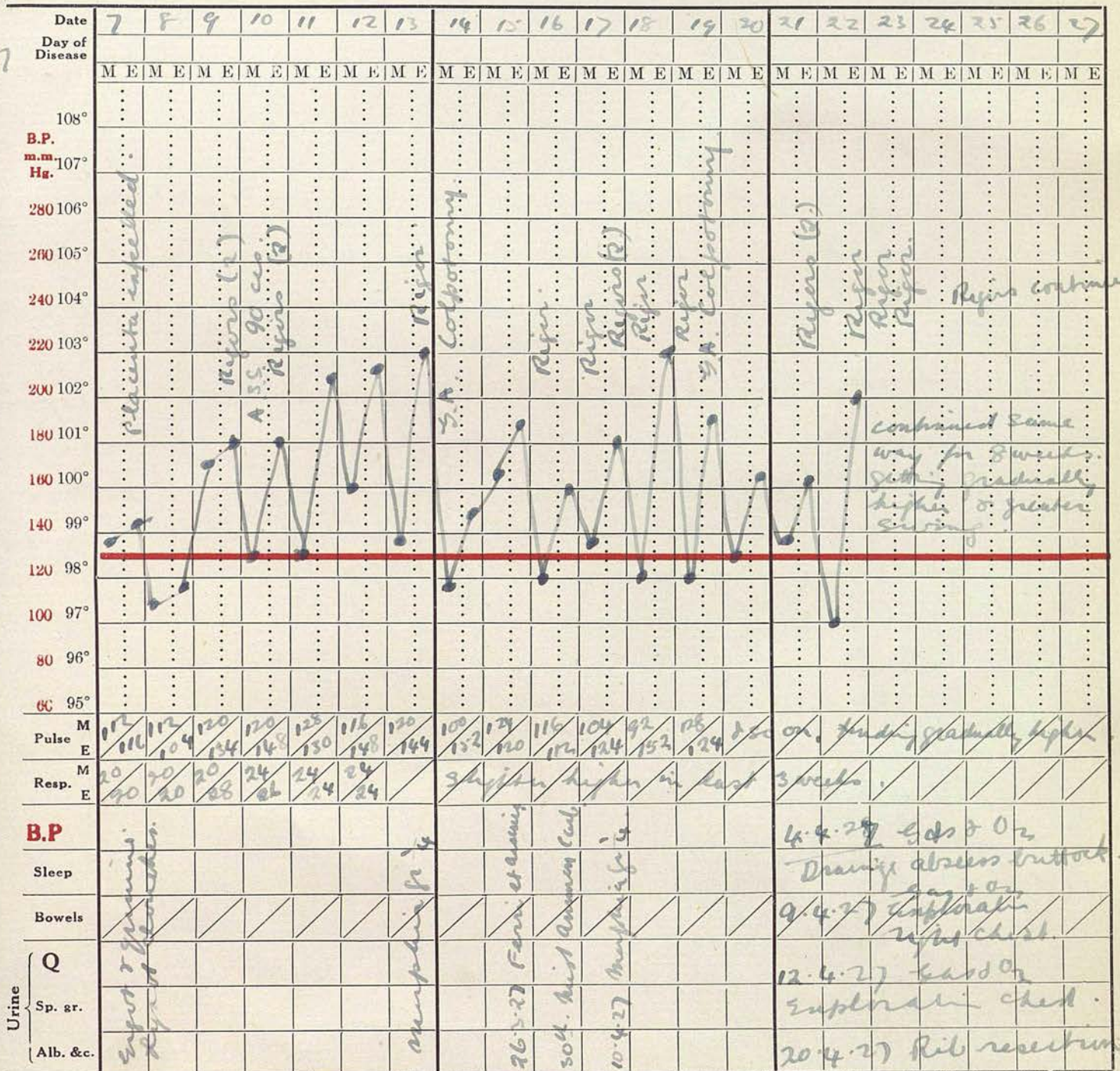
## THERMIC CHART.

Honorary \_\_\_\_\_

Name *Aet-20. Para. 1. ?unmarried* Reg. No. *10-3529.*

Ward *Mentally below par.*

Medical Officer *Admitted 7th March 1927. Died 5th May 1927.*



Remarks: *4 mths. abortion 3 days ago. Pain, haemorrhage & discharge since. Looks toxic, tongue furred, discharge offensive. Tenderness & indefinite mass in RIF. Placenta expelled spontaneously same day. Pelvic abscess drained twice thru' vagina. Continued hectic temp. & many rigors. Blood cult. twice sterile. Chest explored twice - few shrap. from fluid canal. Abscess in buttock drained. Empyema drained. Died in 8 weeks. P.m. notes on back of chest.*



Deil 5.5.27

P.M. 5.5.27

The body is that of an emaciated girl.

Rymer marks present.

Drainage wound in right chest wall.

Heart Normal size. Myocardium pale & somewhat soft. Valves healthy.

Lungs Pockets of pus occur in both pleural cavities. These have originated from pyaemic abscesses in lungs. Lungs show congestion & oedema.

Uterus This is small & wall healthy. It is pulled towards the right by inflammatory fibrosis. Pockets of pus occur on the right side of the uterus & between the uterus bladder & sigmoid on the left side.

The cervix is eroded.

Liver Shows some toxic change.

Spleen enlarged & congested.

Kidneys cloudy swelling.

Suprarenals slightly congested.

Diagnosis Pelvic peritonitis, pyaemia,  
double empyema.

Died 1 day after admission, ? 7 after onset.

P.M. Congestion and oedema of lungs and terminal broncho-pneumonia. Peri- and endocardium and intima of aorta stained pink. Marked peritonitis, uterus enlarged, soft and recent adhesions to pelvic colon. It contains blood clot and doubtful placental debris. Cultures not taken.

688 K. Septicaemia following 3 months abortion.

See attached chart.

No P.M. or Cultures made.

703 K. Aet. 46 yrs. Para 2.

5-6 months miscarriage - stated that leg was presenting. Loss slight.

Tongue dry and coated.

Temp. 102°. P. 120.

TREATMENT: - foetus extracted. Five hours later placenta removed manually under gas and oxygen. Subcutaneous saline. Ergot and quinine. Died 12 hours after admission, 1 day from onset.

P.M. Heart flabby and dilated. Lungs congested and oedematous. Haemolysis in intima of aorta. Uterine wall congested. Small piece of placenta remaining. Placental site soft and friable. Gas formation in uterine wall. Broad ligaments and ovaries deeply congested. No thrombosis.



# Auckland Hospital.

Reg. No. \_\_\_\_\_

## THERMIC CHART.

Honorary \_\_\_\_\_

Name \_\_\_\_\_

Reg. No. **688K.**

Ward **Cust. 4 34s. P. ?**

Medical Officer **Admitted 2.5.27.**

Date	3	4	5	6	7	8	9	10	11										
Day of Disease	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M
108°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B.P.	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
m.m.	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Hg.	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
280 106°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
200 105°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
240 104°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
220 103°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
200 102°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
180 101°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
160 100°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
140 99°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
120 98°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
100 97°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
80 96°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
60 95°	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Pulse	M 160	E 140	M 130	E 120	M 120	E 128	M 128	E 132	M 140	E 104	M 126	E 120	M 122	E 122					
Resp.	M 24	E 24	M 24	E 24	M 24	E 24	M 24	E 24	M 24	E 24	M 24	E 24	M 24	E 24					
B.P.																			
Sleep																			
Bowels																			
Urine																			
Q																			
Sp. gr.																			
Alb. &c.																			

Remarks: Abortion apparently complete (no D's) 10 days before admission. When she got up a few days later her leg was swollen. COA looks very toxic. Right leg oedematous to knee & shows large inflamed areas - 2 erysipelas. D's slightly bacillous. Even otherwise neg. next day the right arm was oedematous. Went gradually downhill. Died 11.5.27 No post-mortem.



1307 K. Aet. 30 yrs. Para 2.

History of "miscarriage" a week ago, followed by D. & C. for haemorrhage. Became septic and went steadily downhill. Transfused outside. C.O.A. Extreme anaemia. Looks very ill. Drowsy. Lower abdomen tender. Uterus palpable and tender. P.V. uterus soft and tender and pus easily expressed. T.  $97^{\circ}$ - $103^{\circ}$ . P. 100-130. R. 20-40.

TREATMENT: 3 XX subcutaneous saline and 30 ccs serum 1st day, 30 ccs serum 6th day. Abscess in right hip drained 6 weeks later. Symptomatic. Died 8 weeks after admission - 9 after onset.

No P.M. Cultures not made.

3609 K. Aet. 20 yrs. (unmarried).

Admitted moribund. No history obtained. Skin coppery coloured. Vague signs at both bases. Urine bloodstained. T.  $103^{\circ}$ . P. 120. R. 40.

TREATMENT: Stimulant.

Died in few hours.

P.M. Marked haemolysis in endocardium. Blood stained fluid in pleurae and congestion of lungs. Blood stained fluid in pelvis. Early signs of peritonitis and haemolysis in intestinal walls. Gas bubbles in liver and subcutaneous tissues. Haemolysis and gas formation in kidneys. Uterus enlarged to just above pelvic brim, partly owing to distension with gas.

Haemolysis throughout whole wall. Cavity contains soft necrotic debris. Cervix dilated and eroded. No injury.

FILMS FROM SPLEEN PULP show large numbers of Gram positive bacilli resembling *B. Welchii*.

4483K. Staphylococcus aureus septicaemia following abortion. See attached chart. No P.M.

7689 K. Malignant endocarditis following abortion. See attached chart.

Died 12 days after admission, 3 weeks after miscarriage.

P.M. Congestion and oedema and one septic infarct in each lung. Heart dilated, flabby and pale. Mitral valve shows old thickening. The posterior cusp is eroded, with recent ragged thrombosis. Infarcts in spleen and kidneys. Uterus large and pale, lined with dark necrotic material. Cervix inflamed and vagina almost black. No thrombosis.

Cultures not made.

8239 K. Died after Salpingectomy and drainage of retrocaecal abscess following abortion. See attached chart. No.P.M.

PUERPERAL RECOVERIES.



# Auckland Hospital.

Reg. No. \_\_\_\_\_

## THERMIC CHART.

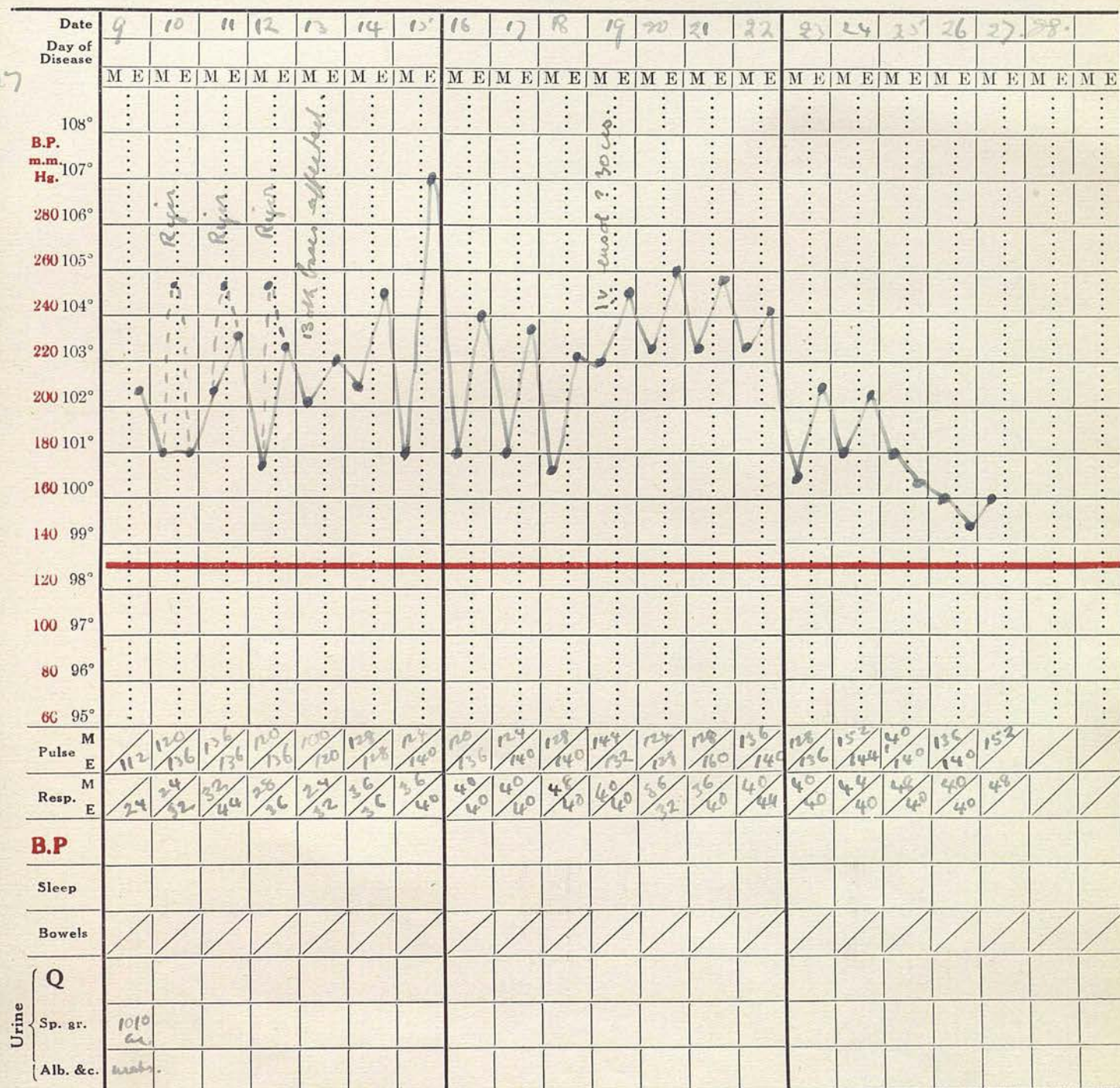
Honorary \_\_\_\_\_

Name Act. 23 yrs. Para 2 (inebriation)

Reg. No. 44834.

Ward Admitted outside hospital 2 days before admission.

Medical Officer Admitted 9.10.27.



Remarks: 4 mths. meningitis a week ago. Malaise & pyrexia since. Stabbing pain in right side of abdomen & shoulder for one day. Temp. slightly brownish pus. Signs of early pneumonia right base. Urine otherwise neg. 13.10.27 pneumonia both bases. 10.10.27 Staph. aureus on blood culture.

28.10.27 Died. No post.

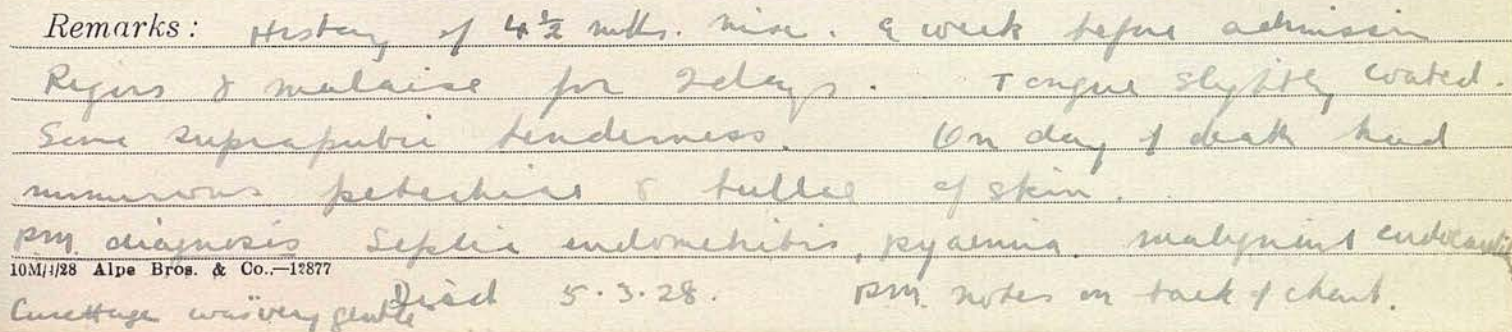


## Reg. No. ....

## Honorary .....

Reg. No. 7689K

Medical Officer *admitted 22.2.28.*





P.M. 6.3.28.

Body is that of a well nourished young woman.

Rigor mortis present.

R. lung Old adhesions right pleura. On section congested & much oedema with a septic infarct in lower lobe.

L. lung Congested & oedema with similar septic infarct.

Heart Dilated, very flabby & pale. Mitral valve shows old thickening. The posterior cusp is eroded & there is a recent ragged thrombus on it.

Liver pale, fatty & toxic.

Spleen Large, congested, soft, semidiffuse. Shows small septic infarct.

Intestines Dilated & congested — no peritonitis.

Kidneys Extreme degree of toxic change. Some fatty change. Capsule strips with some difficulty. Right kidney shows septic infarct.

Uterus enlarged, very flabby, pale: On section interior covered with dark necrotic material. Cervix inflamed vagina dark, almost black in colour. No thrombosis seen.

Cause of death Septic endometritis, pyaemia, malignant endocarditis.

PUERPERAL RECOVERIES.6161 I. Aet. 35 years. Para 8.

Patient  $8\frac{1}{2}$  months pregnant. Spontaneous rupture of lower uterine segment 24 hours before admission (agonising pain, collapse, pallor and air hunger). After operation she was pallid and general condition poor, and later showed signs of pneumonia and effusion right base - 300 ccs aspirated 10th day.  
 T.  $99^{\circ}$ - $101^{\circ}$ . P. 100-130. R. 24-50.

TREATMENT: Hysterectomy 1st day.

Blood transfusion  $\frac{3}{4}$  XX 2nd day. Symptomatic.  
 Recovered in  $3\frac{1}{2}$  weeks. No cultures.

7448 I. Aet. 24 yrs. Para 2.

Had puerperal infection after her first confinement. This confinement 3 days ago, easy, 1 hour labour, but placenta still retained. Attempt to extract it under G.A. failed. Constipated for 3 days.  
 C.O.A. Patient very anaemic, teeth-marked pyorrhoea. Pulse running 150. Tack-tack rhythm.  
 Slight tenderness over uterus and right iliac fossa. Placenta ? expelled spontaneously first day (It is not mentioned in the notes, but they read as though it had been delivered).  
 Temp.  $100^{\circ}$ - $102^{\circ}$ . P. 90-120.  
TREATMENT: Blood transfusion  $\frac{3}{4}$  XX 1st day.  
 25 ccs eusol I.V. 10th day.

G.A. Dilated and curetted on 14th day. Douches, ergot and quinine. Symptomatic. Recovered in 6 weeks. No cultures made.

9291 I. Aet. 18 yrs. Primipara.

Confined 6 days ago - labour long and ended with forceps delivery. Severe antepartum haemorrhage. Membranes were adherent. Bad vaginal tear. Pain in upper part of left loin same night. Rigors and abdominal tenderness next day, and much tenderness in left loin for 2 days.

On admission lochia offensive.

Abdomen tender in left iliac fossa.

T.  $98^{\circ}$ - $104^{\circ}$  (4 weeks). P. 120-140. R. 24-72.

TREATMENT: 80 ccs serum in 2 doses outside.

Blood transfusion <sup>3</sup> XV 2nd day.

Abscess over left lower ribs drained 10th day under local anaesthetic - 20 ccs pus. <sup>Three</sup> 3 days later drainage abscess right buttock. <sup>Two</sup> 2 days later drainage abscess left buttock; <sup>Six</sup> 6 days later drainage abscess left buttock. <sup>Two</sup> 2 days later transfused <sup>3</sup> XV blood. <sup>two</sup> 80 ccs serum in 2 doses (5th and 8th days).

Douches and symptomatic.

Recovered  $6\frac{1}{2}$  weeks after admission.

Blood culture sterile. Cervical swab gave weak growth of streptococcus viridans. Pus from abscess showed streptococci in film but cultures were sterile.

8422 I. 18 $\frac{1}{2}$  yrs. Primipara.

Eclamptic - not in labour. 8 mths pregnant.

General condition poor.

Remained cyanosed and unconscious after operation but recovered in 2 days.

Temp. 100°-102° for nearly 2 weeks.

TREATMENT - of eclampsia. *Caesarian section.*

60 ccs of serum on 10th day. Symptomatic.

Recovered in 4 $\frac{1}{2}$  weeks.

No cultures made.

9075 I. Aet. 18 $\frac{1}{2}$  yrs. primipara (unmarried).

Labour easy. Placenta retained for 3 hours before admission. Haemorrhage free. Patient pale, restless, and lips slightly cyanosed.

She remained weak and listless after removal, and after a week discharge became offensive.

T. 99°-102°. P. 100-120. R. 24-30.

TREATMENT: Manual removal of placenta.

Intrauterine douche. Uterine pack. Serum 90 ccs on 2nd day. Intrauterine douche and cavity swabbed with iodine on 8th day. Vaginal douches, ergot and quinine. Symptomatic.

Recovered in 5 weeks. No cultures.

10554 I. Pyrexia case with intrauterine treatment.

Chart attached.

Recovered in 3. weeks after admission.



# Auckland Hospital.

Reg. No. \_\_\_\_\_

## THERMIC CHART.

Honorary \_\_\_\_\_

Name *A. Oct. 28 yrs. P. 3.*

Reg. No. *105549.*

Ward *Confinement 11.3.27 Difficult - 3 days in labour.*

Medical Officer *admitted 14.3.27*

Date	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3
Day of Disease	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M
108°																					
B.P.																					
m.m.																					
Hg.																					
280																					
200																					
240																					
220																					
200																					
180																					
160																					
140																					
120																					
100																					
80																					
60																					
Pulse	M	96	110	108	94	84	80	90	90	88	92	80	80	80	84	84	80	96	80	80	80
Resp.	M	28	26	26	24	24	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
B.P.																					
Sleep																					
Bowels																					
Urine																					
Q																					
Sp. gr.		1020																			
Alb. &c.																					

Remarks: *Pain & lower abdominal pain since confinement. Slight excess of haemorrhage temporarily. uterus subinvolved & tender - discharge slightly offensive. Tongue coated. 12 hrs. after curettage she became cyanosed & evidently had some cardiac embarrassment. Purulent discharge & subinvolution continued till end of March. No cultures made. Discharged 6.4.27.*



No cultures made.

10640 I. 21 yrs. Para 1.

Confined 6 days ago, easy labour, but considerable exhaustion. Confined in same house within 24 hours of 10524 I. On 5th day developed lumbar and abdominal pain and malaise.

Expression anxious, heart sounds poor quality; abdomen tender, especially in left iliac fossa. Marked laceration of cervix on left side. Lochia normal.

Developed left sided pelvic cellulitis.

T.  $98^{\circ}$ - $104^{\circ}$ . P. 100-120. R. 24-32.

TREATMENT: Serum 8 doses of 120 ccs each in 6 days. Symptomatic. Recovered in  $4\frac{1}{2}$  weeks after admission. Blood culture sterile. Swab not taken.

275 K. Aet. 21 yrs. Primipara.

Under treatment for albuminuria. Had 24 hours labour ending with forceps. Placenta retained, and removed manually next day. Involution was delayed. Perineal sutures tore out 8 days after confinement.

The next note is that she went to the convalescent home  $2\frac{1}{2}$  months later, when she had marked cystocele and incontinence of urine. She had urinary infection.

Febrile before delivery  $99^{\circ}$ - $103^{\circ}$ .

T.  $100^{\circ}$ - $103^{\circ}$  (9 weeks). P. 100-120.

TREATMENT: Of albuminuria.

Ergot and quinine. High hot enemata.

Urotropin and ac. sod. phos. and tonic.

Recovered after 3 months in hospital.

Blood sterile (3 weeks after delivery.) Swab not taken.

637 K. A case of possible good result from eusol.

Chart attached.

Recovered in 5 weeks after admission.

Haemolytic streptococci in cervical swab. Blood sterile.

1890 K. Aet. 27 yrs. Primipara.

Confined 18 days ago - easy - lasted 3 hours.

Felt ill for a week before discharge from the home on 14th day.

C.O.A. Appeared ill, but examination negative.

Lochia offensive.

T.  $100^{\circ}$ - $103^{\circ}$  (3 weeks). P. 100-130.

TREATMENT: Serum 150 ccs in 3 doses on 1st 3 days. Ergot and quinine and douches.

Recovered in 7 weeks after admission.

Blood culture - haemolytic streptococci. Cervical swab - mixed, including haemolytic streptococci.

Throat swab - mixed, including haemolytic streptococci.

2206 K. Aet. 39 yrs. Para 4.

Obstructed transverse presentation -cephalic version - instrumental delivery. Manual removal of placenta. Temp. rose on 2nd day, but no definite



# Auckland Hospital.

Reg. No. \_\_\_\_\_

## THERMIC CHART.

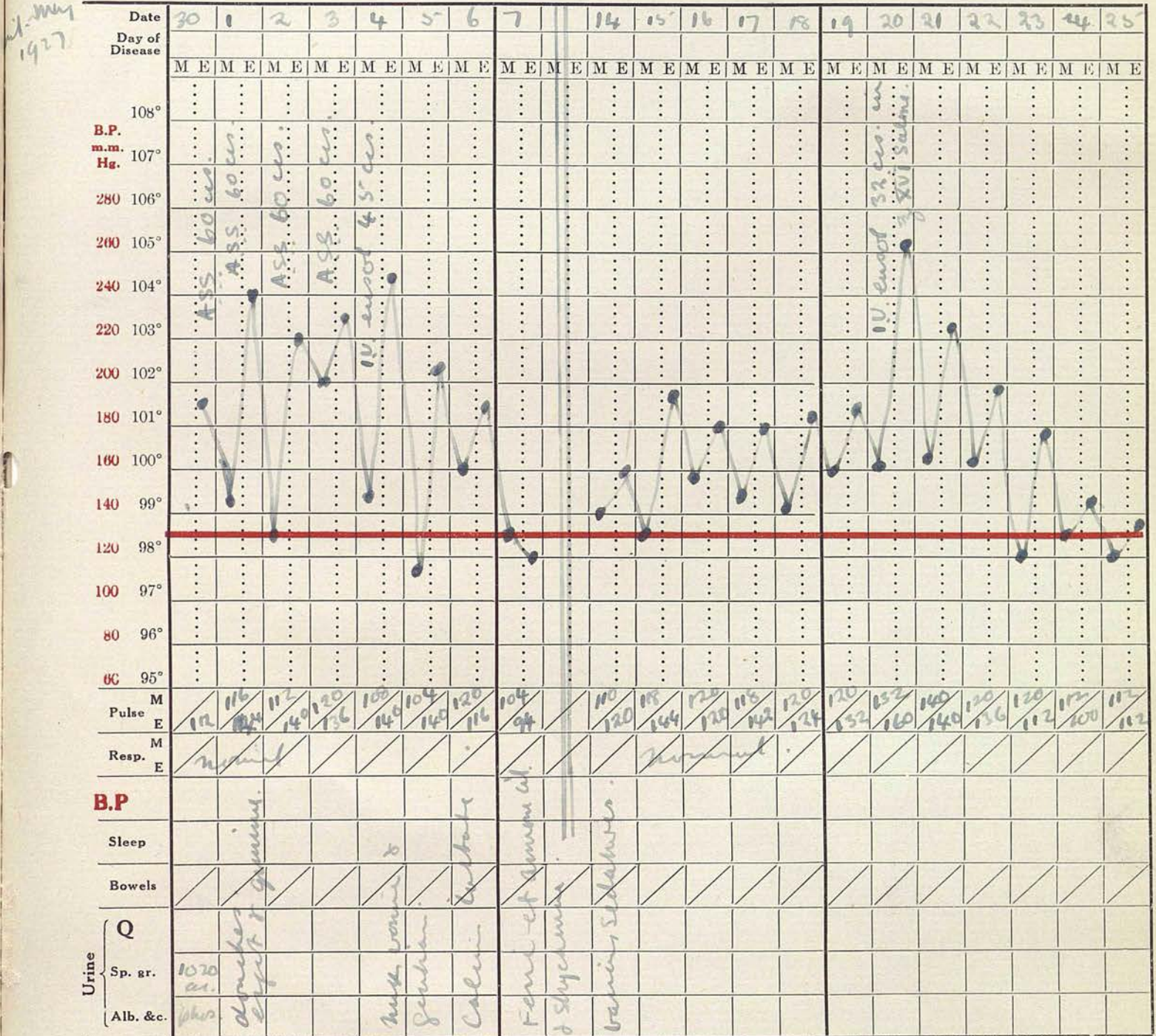
Honorary \_\_\_\_\_

Name ant. 27. Para 0

Reg. No. 637K.

Ward Unpaid 22.4.27. adherent placenta removed manually.

Medical Officer Admitted 30.4.27.



Remarks: offensive lochia, pyrexia & general malaise - 4 days.  
 ? D.K. outside hospital day type admission. Slight anaemia.  
 Tongue slightly furred. Exam. otherwise negative.  
 Blood culture sterile (10.5.27) Cervical swab - pure bacillary dysentery.  
 Suscept followed by very severe rectal both times & unconsciousness 1st day.  
 Developed axillary abscess 25th May. Discharged 3.6.27.



signs were noted until 2 weeks later, when she showed pelvic abscess,

T.  $100^{\circ}$ - $104^{\circ}$ . P. 120-140.

TREATMENT: Intrauterine douche 4th day.

50 ccs eusol intravenously 5th day.

500,000 units scarlet fever streptococcal antitoxin

and .6 novarsenobillon on 6th day.

Drainage pelvic abscess 16th day.

Recovered in 4 weeks.

Blood culture sterile on 8th day. Swab not taken.

2418 K. Aet. 29 yrs. Para 5 (1 abortion).

7 months fetus 6 weeks dead "removed" 3 days before admission. Had sacral and abdominal pains and soreness for 12 hours before admission. Lochia offensive. Slight oedema of legs - nothing else except some tenderness of abdomen.

T.  $98^{\circ}$ - $103.6^{\circ}$  (few days only) P. 80-110.

TREATMENT: Serum 100 ccs in 2 doses on 1st

2 days. Eusol 50 ccs on 2nd day. Ergot and quinine.

Recovered in 3 weeks after admission.

Blood culture sterile. Haemolytic streptococci in cervical swab.

2894 K. Haemolytic streptococcal septicaemia.

Recovered in 6 weeks from time of admission. Chart attached.

The organism was cultured from the cervical swab, from



# Auckland Hospital.

Reg. No. \_\_\_\_\_

## THERMIC CHART.

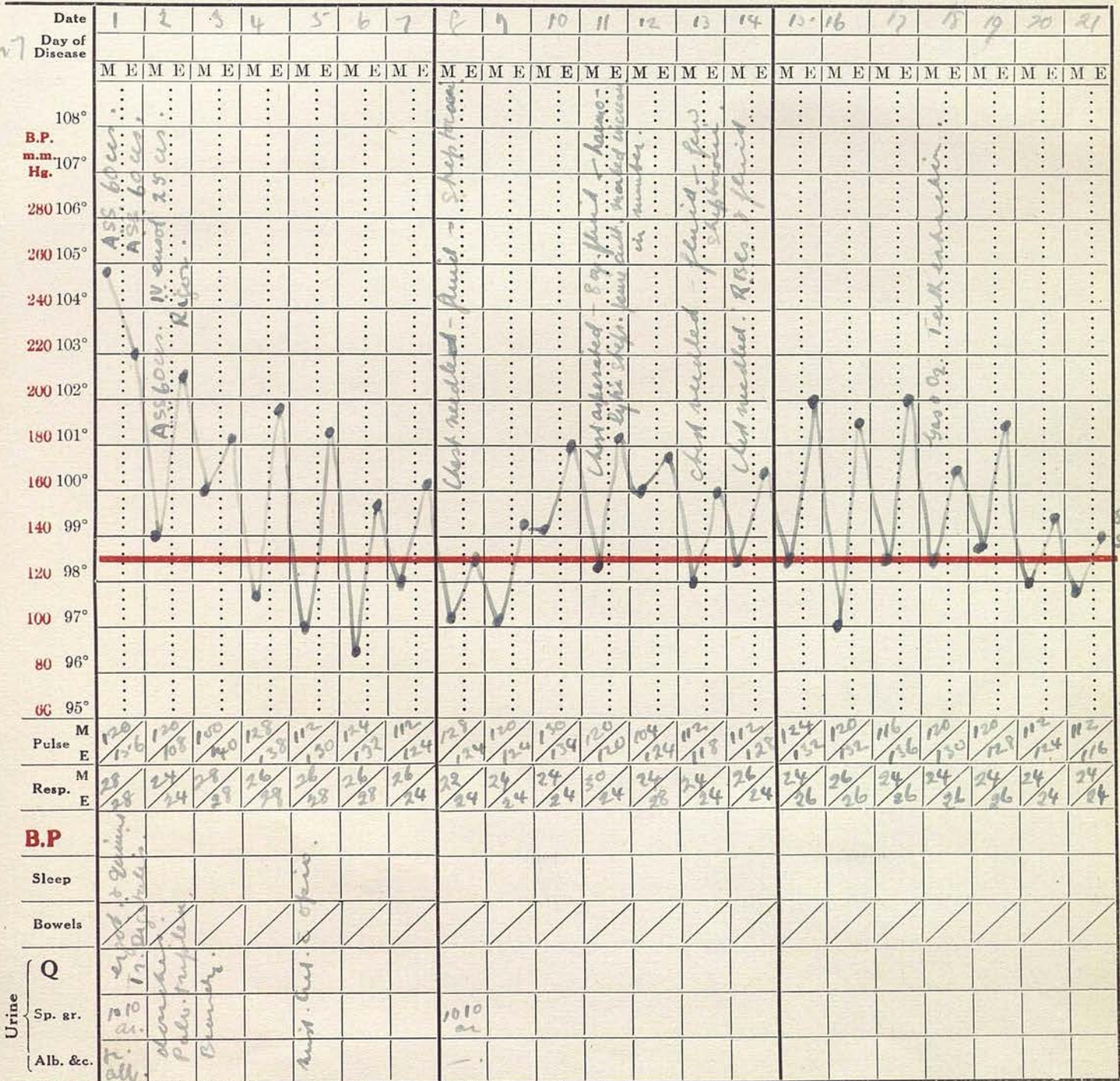
Honorary \_\_\_\_\_

Name *Act. 23 yrs. Para 1.*

Reg. No. *2894K.*

Ward *Unfined 28.7.27. Easy labour.*

Medical Officer *Admitted 1st August 1927. Discharged 10.9.27.*



Remarks: Rigors & chills for 2 days before admission & epigastric pain. Lochia normal. Temperature slightly coated. Slight interic trigis in conjunction. Slight epigastric tenderness. Fundus 2" above pubes, soft & slightly tender. Diminished air entry, left base. 8.8.27 WBC 52,000. Planning effusion left side. Toxæmia & swelling of jaw 18.8.27 - teeth extracted. 1.9.27 Few haemolytic streptococci from blood culture & cervical swab & on 8th 11th & 15th from pleural fluid.



the blood, and 3 times from the pleural effusion. Unfortunately the pus from the dental abscess was not examined - she had had similar trouble with the teeth before but the swelling had always subsided itself.

3426 K. Aet. 23 yrs. Primipara.

Confined 3 days before - 12-14 hours labour ending in forceps delivery. Had a cold in last week of pregnancy. Now has malàise, rigors, and shooting pain in the vulva (sutures). Examination negative. T.  $100^{\circ}$ - $103^{\circ}$ . P. 100-120. R. 20-32.

TREATMENT: 60 ccs serum 1st day.

Ergot and quinine.

Recovered in  $3\frac{1}{2}$  weeks.

Blood culture sterile (twice). Cervical swab showed non-haemolytic streptococci.

7492 K. Aet. 22 yrs. Primipara.

Confined in hospital - tedious breech delivery of 7 months foetus, lasting 3 days. Pain in left chest and signs of pleuro-pneumonia there. T.  $98^{\circ}$ - $101^{\circ}$  (febrile before confinement). P. 90-110. R. 24-48.

TREATMENT: Antipneumococcal and antistrep-tococcal serum 60 ccs of each on 6th and 8th days respectively. Symptomatic. Recovered in 4 weeks.

Blood culture sterile, swab not taken. Sputum showed

streptococci - not typed.

POST-ABORTION RECOVERIES.

3622 I. Aet. 23 yrs. Primipara (unmarried).

Irregular bleeding for about a month. Cervix nearly 1 finger dilated. Some tenderness in both iliac fossae, otherwise examination negative.

T.  $99^{\circ}$  before D. & C.  $98^{\circ}$ - $102^{\circ}$  for a week after.

Pulse 90-115.

TREATMENT: Dilated and curetted on admission; intrauterine douche 2 days later.

Pelvic abscess drained 1 week later.

Ergot and quinine; douches and symptomatic.

Recovered in 3 weeks.

No cultures made.

4929 I. Aet. 32 years. Para 6.

History of 3 months abortion 3 days ago.

Was well until today when she had pain in joints and headache. Looks toxic - face flushed. Rest of examination negative.

T.  $99^{\circ}$ - $102^{\circ}$ . P. 100-120.

TREATMENT: 30 ccs mercurochrome 1% intravenously on admission, and on 5th day. Temp. subsided after it on both occasions, and on 2nd remained down. Recovered in 13 days after admission.

Cultures not made.



6109 I. Case showing violent reaction to blood transfusion. Chart attached.

7872 I. Aet. 30 years. Para 3 (1 abortion).

History of incomplete abortion 3 weeks ago, and curettage outside 5 days ago. Rigor 3 days ago. Feels weak, (lost a lot of blood).

C.O.A. Looks exsanguinated, but examination otherwise negative. 3 days after admission the right base was dull and 3-4 ccs of fluid withdrawn - ran pneumonic course for 10 days.

T.  $100^{\circ}$ - $103^{\circ}$ . P. 100-140. R. 24-32.

TREATMENT: 180 ccs of serum in 2 doses on 1st and 3rd days. Ergot and quinine. Symptomatic. Recovered in 5 weeks after admission. Cervical swab gave weak growth of non-haemolytic streptococci.

7998 I. Aet. 42 years. Para ?.

3 months abortion 5 days before admission.

"Flooding" before admission - packed and given

<sup>sub</sup>~~ex~~cutaneous saline by outside doctor. Very exsanguinated and collapsed. Examination otherwise negative. Discharge offensive later.

T.  $95^{\circ}$ . P. 148. R. 70 on admission.

Later T.  $99^{\circ}$ - $102^{\circ}$ . P. 99-110.

TREATMENT: Subcutaneous saline on admission. Intrauterine douche on 3rd and 8th days.



# Auckland Hospital.

Reg. No. 61099.

## THERMIC CHART.

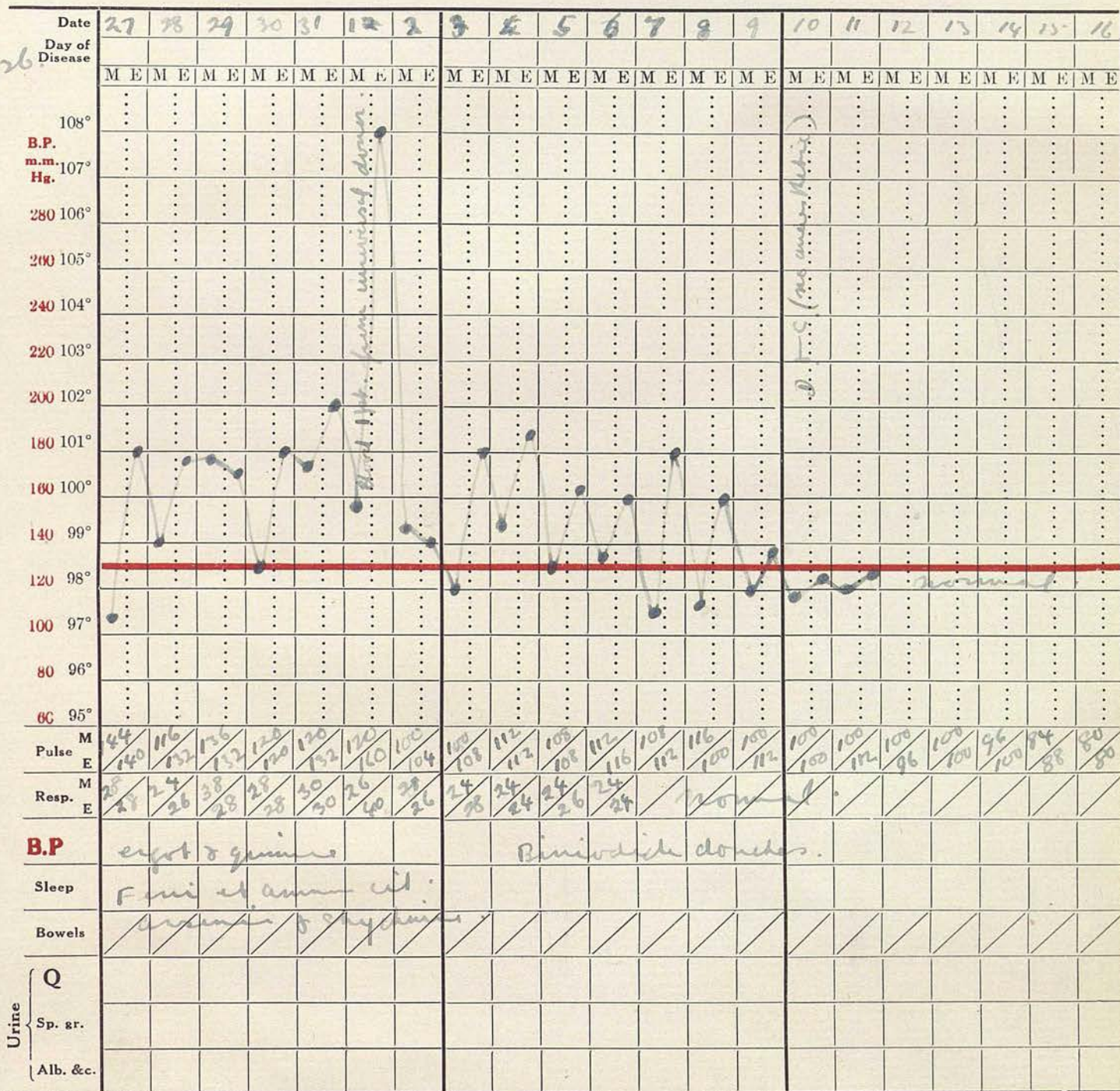
Honorary \_\_\_\_\_

Name act. 24 yrs. P. ?

Reg. No. 61099.

Ward Admitted for haemorrhage following abortion 5 days before.

Medical Officer admitted 27.8.26.



Remarks: Extreme exsanguination - practically comatose & pulseless. Very little bleed, after admission. Slightly improved after transfusion but still anaemic in discharge.

T. 108° was taken in mouth with 2 thermometers. Discharged 27.9.26.



Recovered 4 weeks after admission.

Cultures not made.

82959. *A possible success with encol. Chart attached.*

8321 I. Aet. 37 yrs. Para 7 ( 1 abortion).

Abortion of twin fetuses at 3-4 months, 4 days before admission. Had had rigors and pain in left iliac fossa persistently thereafter. Left leg was swollen and tender, also had definite tenderness in pouch of Douglas. Later she developed an abscess to the left of the uterus large enough to occupy the left iliac fossa.

T.  $98^{\circ}$ - $102^{\circ}$  for about 9 weeks. P. 100-120.

TREATMENT: Cured 2 days after admission, drainage tube left in uterus. Drainage of pelvic abscess per vaginam on 17th day. Laparotomy and drainage of pelvic abscess  $6\frac{1}{2}$  weeks later.

90 ccs of serum on 3rd day.

Ergot and quinine. Symptomatic.

Recovered  $15\frac{1}{2}$  weeks after admission.

Cervical swab showed diphtheroids and b. coli.

8729 I. Aet. 29 yrs. Primipara (unmarried).

History of miscarriage at  $3\frac{1}{2}$  months, 3 weeks ago, followed by pain in the right iliac fossa, especially on walking. Has had some vomiting and shivering. Fulness and feeling of heat in right postero-lateral fornix on bimanual exam.

Temp.  $100^{\circ}$ - $102^{\circ}$ . P. 100-120. R. 28-40.



## Reg. No. ....

*Honorary*.....

Reg. No. 2295-9.

Medical Officer

admitted 6.12.26.

ex-1926

Deschamps 17.12.26



TREATMENT: Cured day after admission, followed by right salpingectomy and appendicectomy and abdominal drainage, for right tubo-ovarian abscess. Recovered in  $4\frac{1}{2}$  weeks after admission.

Cultures not made.

8982 I. Aet. 33 years. Para 7.

History of irregular haemorrhage for 5 weeks, and pain and vomiting for 1 day. About 3 months pregnant. Hypogastric tenderness and tenderness in posterior fornix.

Right lower lobe collapsed after operation and she had also colitis and irritability of bladder.

T.  $97^{\circ}$ - $102^{\circ}$ . P. 98-110.

TREATMENT: Cured on 5th day.

Ergot, quinine and symptomatic.

Recovered in  $6\frac{1}{2}$  weeks after admission.

Cervical swab showed non-haemolytic streptococci and diphtheroids.

10080 I. Aet. 32 years Para 1.

Missed abortion at 4 months for 2-3 months.

Became febrile and was sent in.

Cervix 1 finger dilated and uterus enlarged. Nothing else. Developed pleurisy with effusion - tapped 3 times. Signs of thickened pleura left.

T.  $100^{\circ}$ - $102^{\circ}$  for about 7 weeks. P. 80-110.

TREATMENT: Cured on 2nd day.

Intrauterine douche on 6th day and 12th day.

Ergot and quinine - symptomatic.

It is mentioned that staph. aureus vaccine was given on 23rd day.

Recovered in 9 weeks.

Sputum showed staph. aureus and a few streptococci.

Pleural fluid gave staph. aureus, and a few streptococci after 48 hours culture.

1107 K. Aet. 22 years. Primipara.

History of persistent bleeding following 3 months abortion. Examination negative.

T.  $100^{\circ}$ - $103^{\circ}$  ( $106^{\circ}$  after eusol). P. 100-140.

20 ccs eusol intravenously on 1st day.

Curettage and intrauterine douche on 4th day.

Recovered in 10 days.

Blood and cervical swab reported sterile.

*1294K. A possible success with serum. Chart attached.*

1518K. Aet 29 years. Para 2.

Two months abortion 10 days ago. Free haemorrhage for 2 days then slight abdominal pain, and passage of clots. Discharge continued. 1 day ago started to have acute lower abdominal pain.

T.  $99^{\circ}$ - $103^{\circ}$  (worse after D. & C.) P. 100-110.

TREATMENT: Curettage on 2nd day.

Ergot and quinine. Tonic.

Recovered  $5\frac{1}{2}$  weeks after admission.

No cultures made.



# Auckland Hospital.

Reg. No. \_\_\_\_\_

## THERMIC CHART.

Honorary \_\_\_\_\_

Name aet. 35. P.?

Reg. No. 1296K.

Ward Self-induced abortion (domestic.)

Medical Officer admitted 9.5.27

Date															
Day of Disease															
	9	10	11	12	13	14	15	16	17	18	19				
	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M
108°															
B.P.															
107°															
Hg.															
280 106°															
260 105°															
240 104°															
220 103°															
200 102°															
180 101°															
160 100°															
140 99°															
120 98°															
100 97°															
80 96°															
60 95°															
Pulse	M 120	E 100	M 92	E 88	M 116	E 92	M 98	E 84	M 86	E 84	M 80	E 88			
Resp.	M 24	E 22	M 20	E 18	normal										
B.P.															
Sleep															
Bowels															
Urine															
Q															
Sp. gr.															
Alb. &c.															

Remarks: History of missed period & dizziness, followed by malaise & nervousness for 2 days before admission. Except that the tongue was dry & coated & uterus slightly enlarged & tender examination was negative.

Blood culture sterile. Gsw. swabs - pure culture of haemolytic strep.

Re-admitted 27.5.27 (2 serum rash.)

Discharged 19.5.27.



3340 K. Aet. 27 years. Para 2.

History of abdominal pains and irregular haemorrhage for 5 weeks.

C.O.A. pale and shocked. Shifting dulness in flanks, and abdominal tenderness. Os. 1 finger dilated, bulging in fornices and tenderness. Developed double pleuro-pneumonia 6 days later, and this was followed by abortion of 4-6 weeks foetus.

Temp.  $98^{\circ}$ - $101^{\circ}$  (6 weeks). P. 90-110.

TREATMENT: Laparotomy with drainage for early pelvic peritonitis 1st day. Symptomatic.

Recovered in  $6\frac{1}{2}$  weeks after admission.

No cultures made.

3496 K. Aet. 23 yrs. Para ?.

Curetted outside a week before admission for 6 weeks abortion. Had a rigor the following day and has had 3 more since.

Nothing to note in examination.

T.  $100^{\circ}$ - $103^{\circ}$  (1 week) P. 100-120.

TREATMENT: 40 ccs serum 1st day.  
.6 neokarsivan 2nd day. 40 ccs eusol intravenously 3rd day.

Recovered in 4 weeks after admission.

No cultures made.

3984 K. Aet. 29 years. Para 5 (3 abortions).

History of haemorrhage and malaise for 3

days. Looks "sick" but examination otherwise negative.  
T.  $103^{\circ}$  then  $99^{\circ}$ - $101^{\circ}$ , normal in a week. P. 128, then  
100-110.

TREATMENT: Expectant till temperature was  
normal (1 week), then curetted.

40 ccs serum 2nd day. Ergot and douches.

Recovered in  $3\frac{1}{2}$  weeks.

No cultures made.

5929 K. Aet. 35 years. Para 5 (and 1 ectopic).

History of downbearing pain and offensive  
discharge for 3 weeks following  $3\frac{1}{2}$  months <sup>miscarriage</sup>. The  
lower abdomen was tender on examination, and there was  
offensive discharge which continued after curettage,  
when she also developed pleurisy of the right base.  
T.  $99^{\circ}$  before D. & C.  $98^{\circ}$ - $102^{\circ}$  (3 weeks) after it.  
Pulse 90-110.

TREATMENT: Curetted on admission.  
Quinine and ergot, douches, and symptomatic.

Recovered in 6 weeks.

No cultures made.

6927 K. Hyperpyrexia immediately following  
miscarriage treated by serum & intravenous  
douches.



# Auckland Hospital.

Reg. No. \_\_\_\_\_

## THERMIC CHART.

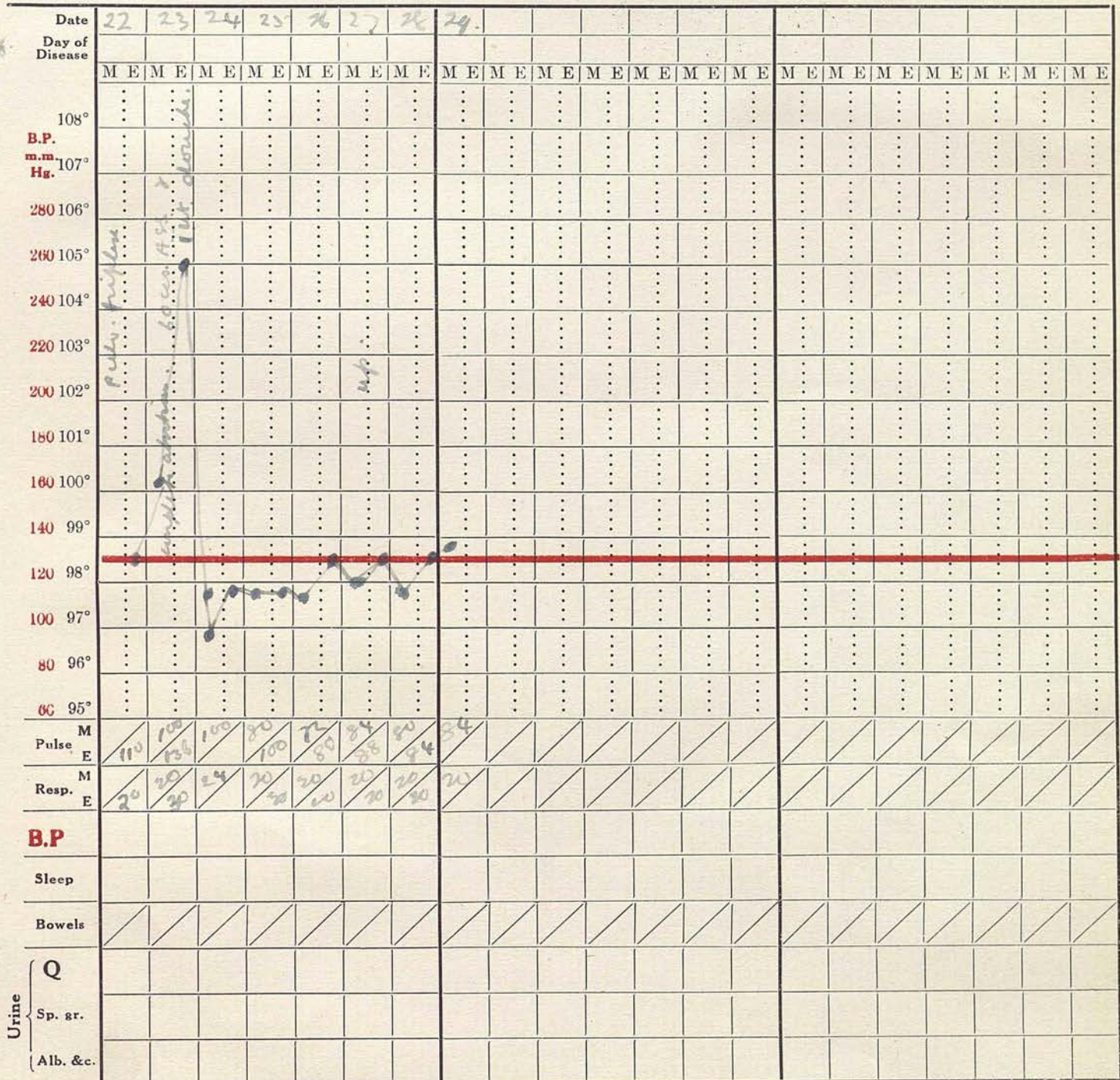
Honorary \_\_\_\_\_

Name Carl. 18 yrs. single

Reg. No. 6927K

Ward \_\_\_\_\_

Medical Officer Admitted 22.1.28.



Remarks: Haemorrhage 3 days before. 10 p.p.s. water  
discharge since. General condition good.  
Fetus & placenta expelled on day after admission followed  
by rigor & temp. 105°. Since 60 cc. Serum & antiseptic dress  
Recovery uneventful. Discharged 29.1.28.